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ADMINISTRATION REPORTS

OF THE

FOREST DEPARTMENT

IN THE

BOMBAY PRESIDENCY,

INCLUDING

SIND

FOR THE YEAR 1891-92.

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NORTHERN CIRCLE.

No. 4708 of 1892-93.

From

A. T. SHUTTLEWORTH, Esq.,
Conservator of Forests, N. C.;

To

T. D. MACKENZIE, Esq.,
Chief Secretary to Government,
Revenue Department,
Bombay.

Camp Poona Districts, 12th December 1892.

Sir,

I have the honour to submit herewith the Forest Administration Report of the Northern Circle for the official year 1891-92, with its prescribed subsidiary statements.

I have the honour to be,
Sir,
Your most obedient Servant,
A. T. SHUTTLEWORTH,
Conservator of Forests, N. C.

Through the Commissioners, Northern and Central Divisions.

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FOREST ADMINISTRATION REPORT

OF THE

NORTHERN CIRCLE, BOMBAY PRESIDENCY,

FOR THE OFFICIAL YEAR 1891-92.

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INTRODUCTION.

The year 1891-92 will be remembered in the history of Forest administration in the Northern Circle by three prominent events, *viz.* :—

(1) the transfer of two forest ranges, comprising the Karjat táluka with its Kháláپur petha in the Thána Collectorate of the Northern Circle, to the Kolába Collectorate, and concurrently to the Southern Forest Circle, under orders contained in Government Resolution No. 6561, dated 23rd September 1891, in the Revenue Department, whereby 72 square miles of forest area have been transferred from the Northern Circle to the Southern Circle;

(2) the opening to the grazing of cattle of the closed portions of the Reserved Forests in the Sholápur district and in a portion of the Poona and other Deccan districts, excepting areas of special plantations, owing to a deficient and unseasonable rainfall in the districts above the ghát having diminished the production of grass and caused a very severe scarcity of fodder grass and the impoverishment of pasturage;

(3) the revenue of the year, notwithstanding the loss of two ranges with their receipts, having been still again the largest on record.

2. Forest reservations have continued to expand: 142 square miles and 515 acres have been added to Reserved Forests, while, on the other hand, 76 square miles and 204 acres, including 64 square miles contained within the Karjat táluka and Kháláپur petha, have been deducted from Reserved Forests; and while no additions have been made to Protected Forests, large removals have been made from them, chiefly, however, for transformation into Reserved Forest.

3. The settlement of 29½ square miles of old forest which had been notified under Section 34 of the Forest Act during 1879, and of 287 square miles and 444 acres provisionally notified under Section 4 recently, was effected during the year; and 548 square miles of provisionally notified forest lands were still undergoing settlement under the procedure of Chapter II of the Forest Act at the end of the year.

4. The Privilege Codes of the different Divisions have continued in the *status quo ante*, no new concessions having been granted during the twelve months.

5. 1,453 linear miles of forest boundaries were defined upon the ground by the erection of 29,671 special forest boundary marks at a cost of Rs. 11,805.

6. The Forest Survey and Working Plans Branches respectively maintained the progressive tenor of their courses during the year, making satisfactory shows of work.

7. The sanction of Her Majesty's Secretary of State for India in Council was recorded to the reorganization of the superior staff of the Forest Department, with its broad division into two branches, Imperial Forest Service and Provincial; and the new arrangements were brought into application from the 1st April 1892. The subordinate staff, Protective and Office Establishments, remained as they were, and have undergone no changes.

8. There was a decrease in the number of forest prosecutions taken into the Criminal Courts; but on the other hand, the number of cases compounded by Forest Officers under Section 67 of the Forest Act was greater in the year of this report than during the preceding year.

9. The number of cattle of different kinds impounded during the year, for trespassing into closed forest reservations, and also for grazing without having taken permits and paid the prescribed fees in open forests, was 339,296 against 302,193 in the year preceding.

10. Fire conservancy shows a slight improvement, the percentage burned being 20 against 21 in the year before.

11. The year was not a satisfactory one for reproduction, natural and artificial, as the rainfall was abnormally short and also unseasonable.

12. The receipts from grass and grazing have continued their chronicled annual augmentation since the great famine year 1877, having increased from Rs. 3,61,984 in 1890-91 to Rs. 4,35,923 in 1891-92.

13. 1,202,372 cattle were provided with pasturage in open forests on payment of fees, and 631,466 cattle have enjoyed free grazing inside the open forests.

14. Another financial success has been recorded, despite the loss of the revenue of two ranges which has gone to the credit of the Southern Circle; for the revenue of 1891-92 is the highest on record. Good forest conservancy, together with the exhaustion of former sources of supply of timber and other forest produce from areas outside the State forests, and the penetration of our timber and forest produce into new markets, as well as in greater volume into old centres of trade, have sent up the revenue beyond last year's leap.

15. The following statement shows the names of the superior Forest Officers who have been conducting the administration of the forests during the year, and the stations they have occupied, with other particulars :—

Northern Circle.

Mr. A. T. Shuttleworth, Conservator of Forests, 1st Grade, throughout the year.

No.	Forest Division.	Name of officer.	Rank.	Designation.	From	To	Remarks.
1	North Thâna ...	Mr. F. Gleadow ...	Deputy Conservator of Forests, 4th Grade.	Divisional Forest Officer.	1st April 1891 .	15th May 1891.	
		,, G. P. Millett ...	Assistant Conservator of Forests, 1st Grade.	Do. ...	16th May 1891 ...	16th Nov. 1891.	
		,, L. S. Osmaston...	Assistant Conservator of Forests, 2nd Grade.	Do. ...	17th Nov. 1891 ...	18th Dec. 1891.	
		,, G. P. Millett ...	Assistant Conservator of Forests, 1st Grade.	Do. ...	19th Dec. 1891 ...	31st March 1892.	
		,, A. C. Robinson	Acting Sub-Assistant Conservator, 3rd Grade	North Sub.-Divisional Officer.	1st April 1891 ..	18th Feb. 1892.	
		,, J. Baptista ...	Sub. *pro-tem.* Sub-Assistant Conservator, 3rd Grade.	Do. ...	19th Feb. 1892 ...	31st March 1892.	
		,, J. Baptista ...	Do. do.	South Sub.-Divisional Officer.	1st April 1891 ..	18th Feb. 1892.	
		,, A. C. Robinson...	Acting Sub-Assistant Conservator, 3rd Grade.	Do. ...	19th Feb. 1892 ...	31st March 1892.	
2	South Thâna ...	Mr. G. P. Millett ...	Assistant Conservator of Forests, 1st Grade.	Divisional Forest Officer.	1st April 1891 ...	16th Dec. 1891.	
		,, L. S. Osmaston..	Do. 2nd Grade.	Do. .	17th Dec. 1891 ...	31st March 1892.	
		,, J. H. Clabby ...	Sub-Assistant Conservator of Forests, 3rd Grade.	North Sub.-Divisional Officer.	1st April 1891 ...	9th Nov. 1891.	
		,, L. S. Osmaston .	Assistant Conservator, of Forests, 2nd Grade.	Do. ...	10th Nov. 1891 ...	18th do.	
		,, G. P. Millett ...	Do. 1st Grade.	Do. ...	19th do. .	26th do.	
		,, K. B. Phadke ...	Acting Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ..	27th do. ...	17th Dec. 1891.	
		,, A. N. Master ...	Do. do.	Do. .	18th Dec. 1891 ...	31st March 1892.	
		,, L. S. Osmaston ..	Assistant Conservator of Forests, 2nd Grade.	South Sub.-Divisional Officer.	1st April 1891 ...	18th Nov. 1891.	
		,, G. P. Millett ...	Do. 1st Grade.	Do. ...	19th Nov. 1891 ...	26th do.	
		,, K. B. Phadke ...	Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	27th do. ...	2nd Jan. 1892	
		,, W. F. D. Fisher.	Assistant Conservator of Forests, 3rd Grade.	Do. ..	3rd Jan. 1892 ...	31st March 1892.	
3	East Khândesh ...	Mr. F. R. Dessai ...	Deputy Conservator of Forests, 1st Grade.	Divisional Forest Officer.	1st April 1891 ...	Do.	
4	West Khândesh.	Mr. R. S Fagan ...	Do. 4th Grade.	Do. ...	Do. ...	1st July 1891.	
		,, F. R. Dessai ...	Do. 1st Grade.	Do. ...	2nd July 1891 ...	13th Nov. 1891.	
		,, E. G. Oliver ...	Assistant Conservator of Forests, 2nd Grade.	Do. ...	14th Nov. 1891 ...	31st March 1892.	
		,, G. S. Hingo ..	Sub. *pro-tem.* Sub-Assistant Conservator of Forests, 3rd Grade.	Sub.-Divl. Officer.	1st April 1891 ...	Do.	
5	Násik	Mr. W. G. Betham ...	Deputy Conservator of Forests, 2nd Grade.	Divisional Forest Officer.	Do. ...	Do.	
		,, W. A. Wallinger	Sub-Assistant Conservator of Forests, 3rd Grade.	Sub.-Divl. Officer.	Do. ...	7th August 1891.	
		,, K. B. Phadke ...	Acting Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	8th August 1891.	16th Nov. 1891.	
		,, W. A. Wallinger.	Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	17th Nov. 1891 ...	31st March 1892.	
6	Ahmednagar ...	Mr. A. D. Wilkins ...	Deputy Conservator of Forests, 4th Grade.	Divisional Forest Officer.	1st April 1891 ...	Do.	
7	Poona	Mr. R. C. Wroughton.	Do. 1st Grade.	Do. ...	Do. . .	15th May 1891.	
		,, F. Gleadow ...	Do. 4th Grade.	Do. ...	16th May 1891 .	17th August 1891	
		,, R. C Wroughton.	Do. 1st Grade.	Do. ...	18th August 1891.	31st March 1892.	
		,, W. R. Gaunde ...	Sub-Assistant Conservator of Forests, 2nd Grade.	Sub.-Divl. Officer.	1st April 1891 ..	Do.	
8	Sátára	Mr. C. Greathood ..	Deputy Conservator of Forests, 3rd Grade.	Divisional Forest Officer.	Do. ...	24th June 1891.	
		,, G. D. Panse, C. S.	Assistant Collector ...	Do. ...	25th June 1891 ...	3rd July 1891.	
		,, R. S. Fagan ...	Deputy Conservator of Forests, 4th Grade.	Do. ...	4th July 1891 .	31st March 1892.	
		,, L. D Joshi ...	Sub-Assistant Conservator of Forests, 1st Grade.	Sub.-Divl. Officer.	1st April 1891 .	Do.	
9	Sholápur . ..	Mr. S. Hornidge ...	Assistant Conservator of Forests, 1st Grade.	Divisional Forest Officer.	Do. ..	Do.	
10	Surat	Mr. R. H. Madan ..	Acting Assistant Conservator of Forests, 3rd Grade.	Do. ...	Do. ...	Do.	
		,, K. B. Phadke ...	Acting Sub-Assistant Conservator of Forests, 3rd Grade.	Sub-Divl. Officer.	1st Feb. 1892 ...	31st March 1892.	
11	Panch Mahâls .	Mr. H. W. Keys ...	Deputy Conservator of Forests, 4th Grade.	Divisional Forest Officer.	1st April 1891 ...	11th August 1891.	
		,, W. A. Wallinger.	Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	12th August 1891.	10th Nov. 189 .	
		,, H. W. Keys ...	Deputy Conservator of Forests, 4th Grade	Do. ...	11th Nov. 1891 ...	31st March 1892	
12	Working Plans	Mr. T. B. Fry ...	Do. 3rd Grade.	Do.	1st April 1891 ...	Do.	

CHAPTER I.

AREA AND BOUNDARIES.

1.—AREA.

16. Specially appointed Forest Demarcation and Settlement Officers were employed in the Thána, Khándesh and Ahmednagar Collectorates, and in the leased Dángs during the year, while the Demarcation and Settlement Offices in the Násik, Poona, Sátára, Sholápur, Surat and Panch Mahále Collectorates were in charge of Assistant or Deputy Collectors in addition to their own revenue and magisterial offices and duties. The officers were engaged upon,—

(*a*) the selection of forest lands or waste land, the property of Government or over which Government have proprietary rights: or to the whole or any part of the forest produce to which Government are entitled, in view to their constitution as Reserved or Protected Forests, according to the circumstances and conditions affecting them in parts of the country where forest reservations had still to be made;

(*b*) the acquirement by purchase, or otherwise, of occupied lands included within projects of forest reservation, which have already been approved and sanctioned by Government;

(*c*) the sifting of old forest reservations, in view of the exclusion and disforestation of such portions of them as experience has shown to be unsuitable for continued retention under forest conservancy arrangements;

(*d*) the settlement under the prescriptions of Chapter II of the Forest Act of such lands as have been provisionally notified under Section 4 of that Act, and the undertaking of enquiries into the nature and extent of the rights of Government and of private persons, in or over forest land or waste land to which the provisions of Chapter IV of the Forest Act of Protected Forests are proposed to be applied by notification to issue under Section 28, and the recording of their results;

(*e*) the compilation of records appertaining to the constitution of Reserved and Protected Forests, such as forest registers and maps, showing the location and the boundaries of all legally constituted forest reservations.

17. The changes which have affected the forest areas in the Northern Circle during the year are exhibited in the following statement:—

1	2	3				4				5				6				7				8
No.	Division.	Area on 1st April 1891 according to last year's figures.				Area on 1st April 1891 after rectification of errors in book entries had been made.				Added during the year.				Disforested during the year.				Area on 31st March 1892.				Remarks.
		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		
		Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	
1	North Thána ...	371	599	329	542	371	599	329	542	37	220	...	...	3	409	55	568	405	410	274	614	
2	South Thána ...	325	417	335	405	325	572	335	250	...	.	...	...	64	7	7	478	261	565	327	412	
3	East Khándesh ...	791	299	17	545	791	299	17	545	...	17	...	...		181	17	545	791	135	..		
4	West Khándesh .	1,092	625	184	124	1,092	625	184	124	9	510	...	...	.	.	6	329	1,102	405	177	435	
5	Násik . .	1,192	308	.	...	1,192	308	...		86	347	...	...	...	64	...	...	1,278	579	...	..	
6	Ahmednagar ...	831	432	11	297	831	432	11	297	2	114	..	...	...	.	...	...	833	546	11	297	
7	Poona	743	237	...	...	743	251	...	...	...	60	...	...	..	89	.	...	743	222	...	...	
8	Sátára	686	67	1	8	686	69	1	8	5	604	...	...	7	468	..	...	684	205	1	8	
9	Sholápur	276	592	...	...	276	592	...	...	...	391	..	...	...	...	..	...	277	343	...	..	
10	Surat	68	145	...	...	68	145	..	...	...	8	...	...	...	...	...	...	68	153	...	.	
11	Dángs	678	320	..	..	678	320	.	...	...	...	..	...	...	..	..	...	678	320	.	.	
12	Kaira	...	39		...		39	..	...	...	...	...		...	.	...	...	...	39	...	...	
13	Panch Mahále	197	578	114	450	197	578	114	450	..	3	..	.	...	265	114	450	197	316	...	...	
14	Ahmedabad .	33	442	...	..	33	441	..	...		...	...	...	..	.	...	..	33	441	...	...	
	Total	7,290	618	994	451	7,291	148	994	296	142	344	..	...	76	203	202	450	7,357	289	791	496	

18. The year commenced with 7,290 square miles and 618 acres of Reserved, and 994 square miles and 451 acres of Protected Forests. By corrections of errors in the forest registers a net gain of 170 acres has accrued to the total of Reserved Forests, but on the other hand a reduction of 155 acres has occurred

upon the figures of Protected Forests; these corrections are distributed as under:—

No.	Division.	Reserved Forest.	Protected Forest.
		Acres.	Acres.
1	South Thána	+155	—155
2	Poona	+14	.....
3	Sátára	+2	.....
4	Ahmedabad	—1	.....

Thus the corrected area of Reserved Forests on 1st April 1891 was 7,291 square miles and 148 acres, and of Protected Forests 994 square miles and 296 acres as shown in column 4 of the statement.

19. One-hundred and forty-two square miles and 344 acres have been added to the Reserved Forests by notifications published under Section 19 of the Forest Act, but no increase has been made in any district to the Protected Forests. The additions which have been made to the Reserved Forests are distributed thus:—

(1) In the Bassein range 30 acres, and in the Váda range 37 square miles and 190 acres; in North Thána division.

(2) In the Chopda range of East Khándesh division 17 acres.

(3) In the West Khándesh division 6 square miles and 465 acres in the Taloda range, 2 square miles and 70 acres in Nandurbár range, and 615 acres in the Shirpur range.

(4) In the Násik Collectorate 86 square miles and 337 acres were notified as Reserved Forest in the Dindori range on 13th May 1891.

(5) In the Ahmednagar Collectorate—

	Sq. m.	a.	g.
Nagar range	0	21	25
Párner range	0	18	21
Jámkhed range	1	334	39
Shevgaon range	0	119	13
Ráhuri range	0	139	26
Kopargaon range	0	13	24
Sangamner range	0	15	20
Akola range	0	90	37¼

(6) In the Poona Collectorate—

	A.	g.
Indápur range	38	16
Haveli range	22	2

(7) In the Sátára division—

	Sq. m.	a.	g.
Jávli range	0	17	8
Khatáv range	5	487	5
Mán range	0	99	33

(8) In the Sholápur Collectorate—

	A.	g.
Sholápur range	138	24
Mádha range	30	37
Karmála range	138	0
Pandharpur range	15	20
Sángola range	55	7
Málsirás range	13	0

(9) In the Surat division 8 acres and 11 gunthás in the Párdi range.

(10) In the Panch Mahále district 3 acres were added in the Hálol range.

20. The statement shows 76 square miles and 203 acres of Reserved Forests, and 202 square miles and 450 acres of Protected Forests, to have been disforested during the year; and these figures are explained as under :—

(1) In the North Thána division 27 gunthas were excluded from the Protected Forest in the Máhim range, as the land was required for use by villagers, and was not suitable for forest conservancy; and in the Váda range 3 square miles, 408 acres and 28½ gunthas of the old Reserved Forest which had been gazetted in March 1879, were disforested under the demarcation scheme, the lands being outside the projected forest boundaries: while from Protected Forests 55 square miles, 567 acres and 30 gunthas were excluded, but of this portion no less than 35 square miles, 136 acres and 37¼ gunthas have been converted into Reserved Forest, so that the actual removals from forest covservancy were limited to 20 square miles, 430 acres and 22¾ gunthas, some of the lands being required for cultivation, and all of it being outside the requirements of forest protection.

(2) In the South Thána division the transfer to the Southern Circle of the Karjat táluka with the Khálápur petha has caused 64 square miles and 7 acres of Reserved, and 7 square miles and 478 acres of Protected Forests, to be entered in column "Disforested," but the disforestation of all this area has not actually occurred: the greater portion of it has merely been transferred from the forest registers of the Northern Circle to those of the Southern Circle; however, 4 square miles, 297 acres and 32¼ gunthas have been entirely removed from the forest reservation in the Karjat táluka, and were done so before this subdivision went over to the Southern Circle.

The Karjat táluka with the Khálápur petha contains an area of 353 square miles, and a population of about 230 to the square mile. It is a rough hilly tract of country, including a considerable stretch of the western slopes of the Sahyádri mountains, which are crossed by the Borghát Road and by the G. I. P. Railway; and the hill sanitarium Mátherán, with its forest-clad plateau 1,500 feet above the sea, and all its wooded eastern slopes. It is divided for purposes of forest administration into two ranges, each corresponding with a revenue subdivision; the forest reservations maintained in which are distributed as under :—

	Reserved.		Protected.	
	Sq. m.	acres.	Sq. m.	acres.
1 Karjat	43	554	5	24
2 Khálapur ...	31	416	0	628

Seeing that the G. I. P. Railway between Bombay and Poona traverses the Karjat range north and south, with 4 stations within its limits, and that there is a branch line from Karjat by way of Palasdari to Cámpoli in the petha, and that the old Bombay and Poona trunk road passes through Khálápur, climbing the Bor Ghat from Cámpoli, the export trade in timber and other forest produce to supply the demands of the Bombay market on the one side, and the above-gháts markets in the Poona district on the other, is considerable, giving a high commercial value to the forests, which, however, acquire much higher importance from the facts—

(*a*) that they safeguard the sources of the Ulhas river and of its main tributaries, the Dhavri, Chilar and Posri, and numerous smaller feeders; and also of the Pátálganga river; protecting their drainage slopes; both these rivers empty into the harbour of Bombay;

(*b*) that they maintain the agricultural prosperity of a considerable spread of cultivable land in the valleys below them, over 30,000 acres of which are devoted to rice crops, and 45,000 acres to dry crop, by impounding a rainfall of more than 100 inches in the year, and controlling its off-flow down the steep sides of lofty mountains.

(3) East Khándesh Division—

	Reserved Forest.		Protected Forest.	
	Sq. m.	a.	Sq. m.	a.
Jámner range	0	181	0	0
Sávda range	0	0	2	184
Chopda range	0	0	15	361

(4) In the West Khándesh division 6 square miles and 329 acres were excluded from the Protected Forest area in the Shirpur range.

(5) Two hundred and sixty-four acres were disforested in the Godhra range and 1 acre in the Hálol range of the Panch Maháls division-but in the Dohad range 72 square miles and 458 acres, and in the Jhálod range 41 square miles and 632 acres, have been removed from Protected Forests for conversion into Reserved; but their final notification under Section 19 of the Forest Act did not occur during the year.

21. At the close of the year the forest reservations legally constituted under the Forest Act represent the following areas in the Northern Circle :—

	Sq. m.	a.
Reserved Forest	7,357	289
Protected Forest	791	486
Total ...	8,149	135

giving an increase of 66 square miles and 311 acres in Reserved Forest, but on the other hand a reduction of 202 square miles and 605 acres in Protected forest; the net decrease in total area of forest reservations, therefore, has amounted to 136 square miles and 294 acres.

2.—FOREST SETTLEMENTS.

22. Forest demarcation, meaning the selection of lands for forest reservations, has been completed in almost all the Collectorates of the Northern Circle, as will be seen from this statement:—

No.	Collectorate.	Number of Tálukas.	Number of Ta'lukas			Remarks.
			In which demarcation has been completed and sanctioned.	In which demarcation is incomplete.	In which demarcation is not undertaken.	
1	Thána	10	6	(a) 2	*2	* Murbád and part of Sháhápur range.
2	Khándesh ...	16	12	(b) 4	...	
3	Násik	12	12	...	...	
4	Ahmednagar ...	11	11	...	...	(a) Máhim and Dáhánu.
5	Poona	8	8	...	...	(b) Taloda, Nandurbár, Pimpalner and Sindkheda.
6	Sátára	11	11	...	...	
7	Sholápur ...	7	7	...	...	
8	Surat, not including the Dángs.	8	5	...	†3	† There are no forests in these tálukas.
9	Panch Maháls ...	3	3	...	...	
10	Ahmedabad ...	7	1	...	‡6	‡ Do. do.
	Total ...	93	76	6	11	

23. In the tálukas wherein the selection of lands for forest reservation has been completed and sanctioned, there still remain to be acquired occupied lands which are contained within the determined forest boundaries of the future, in order to complete the final separation between forests and cultivation, which the approved forest conservancy schemes provide. Most of these lands are held

for cultivation, and the work of acquiring them by payment of compensation, or by giving other lands in exchange, is progressing; 1,762 acres were acquired in the several divisions of the Northern Circle during the year by payment of Rs. 20,835 in compensation as under:—

No.	Division.	Area acquired				Amount of Compensation paid.			Average Rate per Acre.		
		By Exchange.		By Purchase.							
		A.	g.	A.	g.	Rs.	a.	p.	Rs.	a.	p.
1	North Thána	...		...		.....					
2	South Thána	...		0	9	12	0	0	53	5	4
3	East Khándesh	...		1,120	1	4,797	15	1	4	4	0
4	West Khándesh	...		...		.....					
5	Násik	...		45	16	126	0	0	2	8	0
6	Ahmednagar	178	8	158	32	688	5	4	4	4	0
7	Poona	481	38	71	13	11,759	1	1	165	8	0
8	Sátára	...		43	11	64	4	0	1	8	0
9	Sholápur	63	23	87	2	*851	1	6	9	12	0
10	Surat	...		18	22	1,869	0	0	103	12	0
11	Panch Maháls	...		217	15	672	15	10	3	0	0
	Total ...	723	29	1,762	1	20,834	10	10			

*Includes Rs. 6-1-6 for registration charges.

(*a*) In the East Khándesh division the lands acquired by purchase are in three ranges, thus:—

Ranges	Area.		Amount paid		
	A.	g.	Rs.	a.	p.
Erandol	319	6	634	9	11
Jámner	656	15	3,633	12	2
Páchora	114	20	529	9	0

(*b*) In the Násik division one holding of 15 acres and 16 gunthas in the village of Jaidara in the Yeola range was purchased for Rs. 120.

(*c*) In the Ahmednagar district the lands obtained on compensation are as under:—

Ranges.	Area.		Compensation.		
	A.	g.	Rs.	a.	p.
Párner...	3	0	10	0	0
Nevása	42	11	75	0	0
Ráhuri...	31	5	60	0	0
Sangamner	12	35	333	5	4
Akola	69	21	210	0	0

(*d*) The area, 71 acres and 13 gunthas, acquired in the Poona division at a cost of Rs 11,759-1-1, is comparatively costly, but these lands are covered with teak trees, some of which were the property of Government and some of the occupant, and they are situated in the centre of a Reserved Forest at Dháyari in the Haveli range, and the occupant was unwilling to dispose of them, and they were acquired under the Land Acquisition Act, 1870, and therefore the compensation was higher than is ordinarily paid.

(*e*) In the Sátára division all the land acquired was in the Pátan range in four villages and consisted of five survey numbers, representing 43 acres 11 gunthas, for which Rs. 64-4-0 had to be given.

(*f*) The lands purchased in the Sholápur division are as below :—

Ranges.	Area.		Amount paid.		
	A.	g.	Rs.	a.	p.
Karmála	32	28	425	0	0
Mádha	48	22	300	0	0
Sángola	5	32	120	0	0

(*g*) In the Surat division Rs. 1,869 were paid for the purchase of 18 acres and 22 gunthas of land, of which 10 acres and 11 gunthas were acquired for the purpose of a timber depôt at Wágrech, near a bandar on the Ambika river, and near the Bilimora Station on the B. B. & C. I. Railway, at a cost of Rs. 1,455, to which timber from the Dángs' forests is brought for sale, the remainder of the land—8 acres and 11 gunthas— for which Rs. 414 were paid, being at Goema inside a Reserved Forest in the Párdi táluka.

(*h*) In the Panch Maháls division 214 acres and 23 gunthas were purchased in the Godhra táluka for Rs. 652-3-9, and 2 acres and 32 gunthas in the Hálol range for Rs. 12-1-0.

24. In addition to the Reserved and Protected Forests already finally constituted under the Forest Act, considerable tracts of forest lands and of waste lands, the property of Government spreading over 548 square miles and 297 acres in seven districts, some of which, 132 square miles and 37 acres, have been selected both during the year, and some, 416 square miles and 216 acres, during past years, for forest reservation, and have in this view been provisionally notified under Section 4, were still undergoing settlement at the close of the year. The following statement shows the distribution of these provisionally notified and unsettled forest lands at the close of the year, in the different Collectorates of the Northern Circle: -

No.	Collectorate.	Section 4.		Section 28.		Total.	
		Sq. m.	Acs.	Sq. m.	Acs.	Sq. m.	Acs.
1	Thána	3	279	.....		3	279
2	Khándesh	166	423	260	493	427	276
3	Násik	.....		...		...	
4	Ahmednagar	0	521	.....		0	521
5	Poona	1	263	.....		1	263
6	Sátára	0	71	.....		0	71
7	Sholapur	0	93	... ..		0	93
8	Surat	.....		.....		... ..	
9	Panch Mahals	115	74	.....		115	74
	Total ...	287	441	260	493	548	297

25. The settlement under the provisions of the Forest Act of old forest areas which had been gazetted under Section 34 of that Act in the month of March 1879, has been completed in the greater number of the divisions of the Northern Circle, but much still remains to be undertaken in the Thána Collectorate; and the following statement shows the progress made during the year and what still remains to be accomplished. In North Thána the Máhim, Dáhánu and Umbargaon ranges have still to be settled, and in South Thána the Murbád and Sháhápur ranges. Six hundred and seventy-eight square miles are shown against the Surat division, but this represents the territorial area of the Dángs, which are leased by Government for forest conservancy, and should apparently be expunged from the statement, for the reason that although the entire area of the Dángs was gazetted as Reserved Forest under notification No. 26 F., dated 1st March 1879, published under Section 34 of the Forest Act, it has been ruled subsequently that the Forest Act does not apply to the Dángs.

No.	Name of Division and class of Forest.		At the commencement of the year: areas under Section 34 in which private rights have not been inquired into, settled and recorded.	Areas settled during the year. Chapter II of the Forest Act.	Areas settled during the year. Chapter IV of the Forest Act.	Areas of Reserved Forests alienated under Section 26.	Areas of Protected Forests disforested under Government orders	At the end of the year: areas under Section 34 in which private rights have not been inquired into, settled and recorded.	Remarks.
			Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m	Sq. m.	
1	North Thána ...	Reserved ...	35	2	...	...	...	33	
		Protected ..	237	...	18½	...	...	218½	
2	South Thána ...	Reserved ...	98	...	...	...	...	98	
		Protected ...	323	...	...	...	...	323	
3	Poona	Reserved ...	9	9	...	...	...	...	
		Protected ...	...	...	...	...	...	...	
4	Surat	Reserved ...	678	...	...	...	...	678	
		Protected ...	...	...	...	...	...	...	
		Total ...	1,380	11	18½	...	...	1,350½	

Settlement Officers' Proceedings during the year.

Thána Collectorate.

26. The office of the Forest Settlement Officer, Thána, was in charge of the Collector from 1st April to 17th June 1891, consequent to Mr. Owen having proceeded to Europe on sick leave; but Mr. McIver, Assistant Superintendent, Revenue Survey, was appointed Forest Settlement and Demarcation Officer for the Thána Collectorate under orders contained in Government Resolution No. 3962, dated 10th June 1891, and received charge of the office from the Collector on the 18th July 1891, which he retained to the close of the year. The Collector had of course been unable to afford any time to the out-door duties of the office, and had only kept the desk work going.

During the rainy season :—

(1) All the village maps of the Dáhánu táluka and Umbargaon petha were mounted in readiness for field demarcations.

(2) Detailed lists of forest lands in the Dáhánu táluka and Umbargaon petha were prepared.

(3) Topographical sheets of the Dáhánu táluka and its petha were mounted and colored, to illustrate the proposals of the Forest Department.

(4) Forest registers (Form No. II *a*) were prepared for the Váda táluka, and also forest registers for the Kalyán táluka.

(5) A large scale táluka map to illustrate the demarcated forests of the Karjat táluka (which no longer belongs to the Northern Circle) was traced and colored.

(6) Complete lists were prepared of all the maps in the office.

Mr. J. H. Clabby, Sub-Assistant Conservator of Forests, was appointed Assistant Demarcation Officer, Thána, under Government Resolution No. 7049, dated 14th October 1891, and joined Mr. McIver on the 10th November 1891. In the month of November and during the first half of December Mr. McIver visited the Kalyán and Bhiwndi tálukas, completing the settlement work of six villages which remained to be finished; and during the latter part of December he commenced the demarcation and settlement of the Dáhánu táluka. Maps and statements showing Mr. Owen's proposals for the demarcation of the Máhim táluka were furnished in January to the Divisional Forest Officer, North Thána, with a view to his personal inspection and criticisms of the project.

Negotiations were carried on with fair success for the acquisition of occupied lands contained within sanctioned forest reservations in different tálukas; and up to the end of March the settlement and the demarcation of forests in 12 and 19 villages, respectively, in the Dáhánu táluka were completed. The settlement of boundary disputes, which had appeared between the Jawhár territory and forests within the Thána Collectorate, was also taken in hand, and two out of nine such disputes in the Dáhánu táluka were inquired into and settled before the close of the year. Mr. McIver was very considerably retarded in his operations by sickness in his camp in January; all but one of the Surveyors in the field establishment suffered from jungle fever of a severe type, so that three of them were incapacitated for all work from the middle of January to the end of the season, and one of these men, Antaji Martand, died of fever on the 26th March.

27. Government in their Resolution No. 7389, dated 27th October 1891, in the Revenue Department, issued orders sanctioning the final forest demarcation project and the forest settlement of the Váda táluka completed by Mr. Owen, of which mention is made in paragraph 33 of last year's administration report.

The Váda taluka contains an area of 309 square miles, of which about 42 are in alienated villages, and a population of 36,497 or 188 to the square mile; it is a very hilly tract of country, and is at some distance from the sea coast as well as from the Shayádri mountains of the Western Gháts; its eastern boundary, however, ascends to the Mokháda plateau, reaching a height of 1,500 feet above sea level; it has no railway passing through any portion of it, but it lies between the B. B. & C. I. line on the west, and the G. I. P. Railway on the east; it possesses no tidal creeks, but Manor bandar, the most important bandar of timber export in the district, is only a short distance beyond its frontier on the Vaitarna river, which is subject to tidal influence, soon after leaving the Váda táluka; a made-road is being completed which passes through the táluka north and south, and will open its forests out to markets in the Násik district above the gháts, while at the same time, it facilitates export of timber and other forest produce to markets and bandars in the south; a made-road under construction to Manor bandar, passing through the centre of the táluka east and west, will serve, in a high degree, the timber traffic towards the coast; and there are numerous fair weather cart roads leading out of the táluka by every valley on its east, south and west sides, along which strings of carts are to be seen from November to the rains, conveying the exploitable produce of the Váda forests to the railways, and to water carriage, as well as for local supply. The timber growth in the forest lands of the Váda táluka is very fair in size and quality, and is dense in most parts; the inaccessibility of the táluka and the difficulties of transport having protected its trees against such depletion as has occurred in other portions of the Thána district. Selections of areas for forest reservation have been made at different times since 1865 by Revenue Survey, Revenue and Forest Officers, so that in 1878, when the Forest Act came into existence, there were under the immediate management of the Forest Department:—

	Acres.	g.
First class Reserves	50,252	16
Second do.	12,262	24
Other forest lands	14,371	35

and in March 1879, when the total cultivation in the táluka including alienated villages was spread over 55,641 acres, with a rent roll of Rs. 54,587, there were gazetted under Section 34 of the Forest Act, as being under forest conservancy administration at the time, the following areas:—

	Acres.	g.
Of Reserved Forest	54,560	22
„ Protected Forest	35,685	20
Total ...	90,246	2

These included all the forest lands and waste lands covered with trees which are the property of Government; but much of this land, of that gazetted as Protected Forests especially, is not suitable for permanent retention under forest con-

servancy; and in Mr. Owen's final project, which has been approved and sanctioned, the Reserved Forests comprising the entire forest reservations in the Váda táluka are reduced to, and fixed at, 78,788 acres and 25 gunthás, equal to 46·2 per cent. of the territorial area of the Váda táluka excluding the alienated villages. All the permanent land marks which stand out in such bold and conspicuous relief in the landscape form the centres of forest reservations; for example, the fortified solitary hill of Kohoj, which rises straight up from the plains to a height of 1,906 feet above the sea, crowned with two remarkable knobs of trap rock, and which is noticeable from miles round, with its buttressed base covered with trees; the Davja hill in the south, very steep below and sloping above with its two spurs looking like a three-peaked hill; the Kapri hills in the east, the Sudgaon hills in the north-west and the Ikna and Dhomkávla hills in the south-east, distinguish the sites of forest preserves which would give a perfect scientific protection of catchments and drainage slopes, if alienated lands in Government villages, and alienated villages *en bloc*, did not intrude with their hideously barbarous shaven and disforested slopes in the green sea of a promising timber wealth, the property of the State. The forest boundaries have been located by Mr. Owen, wherever it was possible for him to do so, to take in all the chief drainage slopes; and these Forest Reserves besides being commercially valuable will safeguard the agricultural wealth of the Váda táluka.

28. The Collector of Thána has recorded that—

"2. The Collector is not satisfied with the amount of work done by the Forest Settlement Establishment. But he does not think that the small out-turn of work is due to any failing on the part of Mr. McIver.

"3. The establishment was short during the rains, and the unhealthiness of the season delayed both the start and the progress of field operations. In the Collector's own office, when encamped near Mr. McIver's, there was not a single permanent clerk on duty excepting the Head Clerk, and the exposure and risk of the Forest Settlement subordinates was of course much beyond that of an English Office."

Khándesh Collectorate.

29. Mr. C. G. Dodgson, I.C.S., has been Forest Settlement Officer of Khándesh throughout the year, with the exception of a period of one month from 27th August to 27th September while on privilege leave, when Mr. Lucas, I.C.S., Assistant Collector, was in charge of the office; Mr. Dodgson also acted as Collector of the district in addition to his Settlement duties from 4th May to 30th June. At the commencement of the year he was engaged in the Akráni Pargana in demarcating the Bhil settlements within the Akráni-Narbada proposed forest reserve, and in laying down the southern boundary of the latter; but being ordered by Government to relieve Mr. Loch, the Collector, early in May, he had to leave this work unfinished; while acting as Collector he had no time to attend to his regular duties of Forest Settlement Officer; his surveyors, however, were engaged in erecting pillars along the North Navápur and Taloda plain reserves.

During the rains Mr. Dodgson submitted reports on the settlement and demarcation of the forests, the inspection of which had been completed during the travelling season, *i. e.*, on the forests of the Sindkheda and Nandurbár tálukas, the Amli reserve in the Navápur petha, and part of the Akráni-Narbada proposed reserve, in the Taloda táluka. Orders of Government have been received on the last only.

Mr. Dodgson went out into camp after the rains early in November, and inspected part of the forests in the south of the Pimpalner táluka up to the end of the first week in December, the settlement of the northern half of the táluka having been already completed and sanctioned by Government; he then went into the Shirpur táluka with a view to seeing what lands could be added to the Shirpur-Sátpuda reserve, out of the Protected Forests in certain villages according to the Collector's proposals. In January he inspected the Protected Forests of the Sávda and Chopda tálukas with the same object. Early in February he moved camp into the Bhusával táluka and the Edalabad petha, where he completed the settlement, under the Forest Act, of the lands, which formerly occupied, had been acquired and notified under Section 4 of the said Act. During the latter part of

February he proceeded from Bhusával into the Pimpalner táluka and resumed his inspection of forest lands and waste lands for selection of forest reservations, which had been left unfinished in December 1891, and this work was completed by the end of March 1892. Enquiry was held and report submitted to Government, on forest rights of three alienated villages by Mr. Dodgson, but their orders were not out up to the close of the year.

Mr. Dodgson has performed another year's valuable work in selection and settlement of Forest Reserves in the Khándesh District with great judgment and industry, and his name will live in connection with these permanent interests for the establishment of which he has laboured so diligently.

Násik Collectorate.

30. There is no special Forest Settlement Officer employed in the Násik Collectorate, as no sufficient work is left to occupy the full time and attention of a separate officer. The different Assistant Collectors have been appointed *ex-officio* Forest Settlement Officers in their own respective charges, and they perform such work of inquiry and settlement, in respect of acquired occupied lands notified under Section 4 as may be necessary. No settlement work was undertaken during the year. The final notification under Section 19 of the Forest Act, referred to in paragraph 37 of last year's administration report, in respect of the Dindori forests, was published under orders cantained in Government Resolution No. 3189, dated 9th May 1891, in the Revenue Department, and 55,377 acres were thus added to the Reserved Forests constituted under the Forest Act in the Násik Division.

31. The Dindori táluka is one of the western sub-divisions of the Násik district, having the Sahyádri range of Western Gháts for its western boundary; its area is about 528 square miles and its population about 137 to the square mile. The physical character of the country is hilly; on the north extends the Saptashring or seven-horned range of hills with Chattarsingh, one of its peaks rising to a height of 4,659 feet above sea level; the southern slopes of this range are in forest reservation. Several feeders constituting a portion of the head-waters system of the Godávari river have their sources in the Dindori highlands, the chief of these being the Kadva and Bánganga. The forest reserves are distributed fairly over the water sheds and slopes and the rough broken ground. Teak is the predominating tree, but it is only of rafter size at a distance from the gháts in the region of light rainfall; but upon the western slopes of the Sahyadris where the forest growth is comparatively dense and a mixed forest appears, containing Sadra or Ain (Terminalia tomentosa), Dhávda (Anogeissus latifolia), Tiwas (Dalbergia oojenensis), Hed (Adina cordifolia), Kalamb (Stephegyne parvifolia), Bibla (pterocarpus marsupium), Beheda (Terminalia bellerica), Khair (Acacia catechu), Kinaye (Acacia procera) and other so-called junglewood trees associating with the teak tree, the latter in these parts grows to good timber size, with tall clean cylindrical stems. The forest conservancy scheme of the Dindori táluka occupies 55,377 acres of its territorial spread.

Ahmednagar Collectorate.

32. Mr. Vyankatesh Bapuji Vadekar was special Forest Settlement Officer of the Ahmednagar Collectorate throughout the year, and completed the settlement of such lands as had been notified under Section 4 of the Forest Act; and 1,394 acres were finally notified under Section 19 of the said Act. No portion of either a Reserved or Protected Forest was disforested during the year, but on the other hand, 158 acres and 32 gunthas of occupied lands inside forest boundaries were acquired by purchase, and 178 acres and 8 gunthas by exchange for conversion into Reserved Forests; about 26,813 acres of occupied lands which are contained within the sanctioned boundaries of the approved forest reservations, still remain to be acquired in this district, to complete the different forest conservancy projects. Copies of forest registers of the Jámkhed, Karjat, Párner and Nagar tálukas, for the use of the Divisional Forest Officer, and also lists showing the old survey numbers of forest lands, with their corresponding numbers according to the revision survey, for the tálukas of Jámkhed, Nevása, Karjat, Nagar and Shevgaon, were prepared during the year for publication. Mr. Vadekar is doing very good work in the Ahmednagar district.

Poona Collectorate.

33. Mr. C. P. B. Wiltshire, I.C.S., was in charge of the Forest Settlement Office, Poona, throughout the year, with the exception of a period from 1st April to 3rd June 1891, when Mr. Cappel, I.C.S., officiated; both these officers conducted the forest settlement of the Collectorate, in addition to their own revenue and magisterial duties. An area of 553 acres and 11 gunthas of occupied lands within the sanctioned demarcation line has been acquired for forests, out of which 481 acres and 38 gunthas were obtained by exchange, and the remaining 71 acres and 13 gunthas by purchase, the compensation paid amounting to Rs. 11,759-1-1, giving an average rate of Rs. 165-9-11 per acre, which appears to be very high, but the reasons for this have been explained already.

34. The final settlement report of the Indápur táluka, referred to in the concluding portion of paragraph 39 of last year's report, to finish off odds and ends, was sanctioned by Government in their Resolution No. 8498, dated 9th December 1891, in the Revenue Department.

35. Before the days of the Forest Act the demarcated forest reservations in the Indápur táluka were limited to 10,804 acres, but subsequent selections of waste lands for forests have raised the acreage under forest conservancy management to 62,506 acres, or about 17 per cent., of the entire subdivision, which measures 566·6 square miles. The predominating tree on good soil on the banks of rivers and streams is the Bábul (Acacia arabica) which grows to large size, and is intermixed here with Bor (Zizyphus jujuba), Hinganbet (Balanites ægyptiaca), Hewar (Acacia leucophlea), &c. The country is hilly and rugged in the north-west and centre, but towards the Nira and Bhima rivers, which bound it on the north, east and south sides, it is open and level. The broken uplands which run east and west through the centre of the táluka like a back-bone, are very stony and rocky, carrying little or no soil, and as the rains are exceedingly scanty and uncertain, and aridity during the greater portion of the year is extreme, the conditions are as unfavorable as could be devised to reboisement: however, where protection against cattle has been effective, the results are very promising; and there is no reason why the bared and unpromising uplands of Indápur should not be fully covered with fuel and fodder bushes and with good grass within the next 10 or 12 years, provided goats are excluded from these areas, and villagers are not allowed to cut down the young wood, and cattle are not permitted to trample and browse down all plant life. Even now in places where there is some soil, trees are to be seen in the high lands or ridge; but it will be many years before timber, suitable for building purposes, will be produced in any considerable quantities.

36. Settlement inquiries have been completed in respect of 8,289 acres and 33 gunthas of notified forest lands in 43 villages of different tálukas, and there now remains no portion of the old forests, which were gazetted under Section 34 of the Forest Act in March 1879, unsettled. Forest registers were prepared in accordance with Symond's Manual for Khed, Ambegaon and Indápur, completing the series, and copies issued to the Divisional Forest Officer, but the duty of preparing English forest registers in the form, prescribed in the Forest Department Code, remains to be undertaken.

37. The printing of lists of occupied lands contained within the sanctioned forest reserves has progressed: copies of the lists for the Mával, Junnar, Bhimthadi, Sirúr, Indápur, Khed and Ambegaon ranges have been furnished to the local Revenue and Forest officers, and there now remain two lists to be printed, *viz*, for the Haveli and Mulshi ranges; these are delayed for the want of village records of the revision survey, which is still unfinished: negotiations for the acquirement of the occupied lands inside the forest boundaries will now be carried on vigorously with the help of the printed lists. Mr. Wiltshire, I.C.S., has taken great interest in his settlement and demarcation duties, and has been unusually successful in acquiring possession of occupied lands within forest boundaries, and valuable work has been accomplished in the Poona District during the year.

Sátára Collectorate.

38. The selection of the permanent forest reservations and their settlement in the 14 ranges of this Collectorate have been completed some years ago, chiefly by Mr. Muir Mackenzie, I.C.S., but a great deal of miscellaneous work still remains to be done, such as the acquirement of the occupied lands contained within the sanctioned forest reservations, with their settlement after acquisition: this work has been carried on during this year by the Assistant or Deputy Collectors, in their respective sub-divisions, in addition to their own revenue and magisterial duties, and 3,806 acres were acquired by them, settled and constituted Reserved Forest under Section 19 of the Forest Act, while 4,948 acres were disforested during the year. Mr. T. D. Fry, I.C.S., Assistant Collector and *ex-officio* Forest Settlement Officer, instituted inquiries into the forest rights of the Inámdárs of Parvat and Mettaliya in the Jávli táluka, and submitted reports in the matter, which were not disposed of before the close of the year.

Sholápur Collectorate.

39. Forest demarcation and settlement in this Collectorate are practically completed, with the exception of certain occupied lands, situated within the sanctioned demarcation schemes, which have still to be acquired: this work was carried on by the District Deputy Collector, Mr. B. R. Heblikar, in addition to his own revenue and magisterial duties; 87 acres and 2 gunthas were obtained by payment of Rs. 845, and 63 acres and 23 gunthas by exchange: 93 acres were also notified under Section 4 of the Forest Act, and the work of their settlement was still going on at the close of the year.

Surat Collectorate.

40. Mr. A. Lucas, I.C.S., was special Forest Demarcation Officer for the Dángs during the year, and submitted a report No. 63, dated 1st September 1891, to the Collector of Khándesh, upon the projected forest reserves selected by him which, together with the work done by Mr. Gibb, I.C.S., during the previous season, provided for the following reservations:—

Dáng.	Total Area.		Area to be included in Forest.	
	Sq. miles.	Acres.	Sq. miles.	Acres.
Garvi	170	82	74	334
Pimpri	72	94	26	420
Amala (including Koita)	119	77	42	104
Derbhawti...	76	25	24	306
Wasurna	132	14	38	593
Chinchli Gadad	27	23	8	142
Wadhwán	4	90	2	66
Pimpládevi	3	44	...	184
Shivbára	4	99	...	252
Awchar	7	88	...	375
Kirli	21	...	...	440
Total ...	635	636	219	16

41. The Divisional Forest Officer of Surat, Mr. Madan, suggested certain additions to be made to these areas, aggregating 83 square miles 550 acres; and finally a conference of Revenue and Forest officers, composed of the Collector and Political Agent, Khándesh, the Demarcation Officer Mr. Lucas, and the Conservator of Forests, met at Dhulia on the 10th November 1891, and determined what additions could be made to the blocks proposed by Mr. Lucas, and which of the additional areas, proposed by the Divisional Forest Officer, were to be inspected again before it was finally decided whether they should be retained or abandoned. It may be mentioned that all the timber on the lands outside the forest reserves in the Dángs, will still be at the disposal of Government.

Mr. Lucas re-entered the Dángs on the 18th February 1892, and he was engaged up to the end of the year in erecting boundary marks, to define the limits of the selected reserves.

42. In the tálukas of the Surat Collectorate selections and settlements are complete, as far as outer boundaries are concerned and as far as the work of choosing sites for forest reservations has progressed; there are some tálukas in which no forest areas are to be found up to date; but a few occupied holdings within the forest boundaries have to be acquired and settled, and during the year 8 acres and 11 gunthas of these were obtained by purchase at Gooma, by the Assistant Collector, who settled them in his capacity of *ex-officio* Settlement Officer; and they have been notified under Section 19 of the Forest Act.

Panch Maháls Collectorate.

43. Selection of forest areas and settlement in this Collectorate are practically complete. The Assistant Collector in charge of the Godhra táluka undertook an inquiry, under Section 7 of the Act, into rights over the areas of Protected Forest and waste lands, proposed for Reserved Forest under orders contained in Government Resolution No. 1066, dated 10th February 1891, and completed it during the year. The inquiry under Section 7 as to rights over the Protected Forest areas of Dóhad and Jhálod, notified as proposed reserves on the 30th June 1891, in accordance with Government Resolution No. 2974, dated 30th April 1891, was also completed during the year, but the reports were not submitted up to the close of the year.

44. The following statement shows the total forest areas notified at different times under Sections 4, 28, and 34 respectively of the Forest Act which have undergone settlement in the different districts at the hands of their respective Forest Settlement Officers during the year of this report:—

No.	Division.	Area.		Remarks.
		Sq. miles.	Acres.	
1	North Thána	57	540	
2	South Thána	...	...	
3	East Khándesh	...	17	
4	West Khándesh	9	510	
5	Násik	86	337	
6	Ahmednagar	2	114	
7	Poona	9	60	
8	Sátára	5	604	
9	Sholápur	...	391	
10	Surat	...	8	
11	Panch Maháls	...	3	
	Total ...	172	24	

45. The following amounts have been paid in compensation for rights:—

	Name of Division.	Amount.	Remarks.
		Rs. a. p.	
1	West Khándesh	381 0 0	Paid to the holders of rights in Chopda, Shirpur and Sávda ranges.
2	Sátára	30 0 0	Paid to a Dhangar to remove his house from Teli forest in Jávli range.
	Total ...	411 0 0	

46. The expenditure incurred by the Forest Settlement Officers and the cost of their establishments entertained during the year is exhibited in the following table:—

No.	Division.	Forest Settlement Officers.		Office Establishments.		Contingencies.	Total.
		Pay	Travelling Allowance.	Pay.	Travelling Allowance.		
		Rs. a. p	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a p	Rs a. p.
1	North Thána	5,436 13 7	1,770 14 0	2,260 14 2	723 15 8	429 5 9	10,623 15 2
2	South Thána						
3	East Khándesh..	11,263 2 10	1,923 12 8	4,453 6 11	1,483 9 11	291 10 10	19,365 11 2
4	West Khándesh						
5	Ahmednagar	....	....	719 11 9	303 0 3	192 5 0	1,215 1 0
6	Poona	....	....	1,176 0 5	387 14 5	360 14 6	1,924 13 4
7	Sátára	....	....	300 0 0	120 0 0	126 9 6	546 9 6
8	Surat (Dánga)	8,443 2 2	2,100 0 0	1,105 10 8	260 4 11	148 0 8	12,002 2 0
9	Panch Mahála . ..	....	....	..	....	91 15 11	91 15 11
	Total .	25,150, 2 7	5,794 10 8	10,015 11 11	3,228 13 2	1,640 13 9	45,830 4 1

3.—FOREST BOUNDARIES.

47. The work of erecting special forest boundary marks according to the standing orders on the subject was pushed on with vigor during the year, in almost all the divisions of the Northern Circle, and the following statement will show the number of cairns erected, together with the length of the boundary lines demarcated by them in miles, and the cost incurred on their account:—

No.	Division.	Length of Boundaries in Miles.	Number of Cairns erected.			Cost.
			Large.	Small.	Total.	
						Rs. a. p.
1	North Thána	65	998	...	998	494 8 6
2	South Thána	30½	93	442	535	178 1 6
3	East-Khándesh	32	3	129	132	216 14 3
4	West Khándesh... ...	25½	473	2,892	3,365	1,606 8 2
5	Násik	352	2,842	4,148	6,990	3,406 5 1
6	Ahmednagar	92	1,138	...	1,138	696 3 6
7	Poona	283	1,101	6,245	7,346	2,150 0 9
8	Sátára	219	263	5,865	6,128	1,538 14 6
9	Sholápur	99	271	1,021	1,292	392 13 3
10	Surat	158	283	53	336	737 14 0
11	Panch Mahála	97	76	1,335	1,411	387 4 0
	Total ...	1,453	7,541	22,130	29,671	11,805 7 6
	During 1890-91 ...	1,682	5,993	14,683	20,676	8,935 15 6

48. It will be seen that although the length of boundary line marked out is less this year than last, still a greater number of marks has been built during this year, the explanation being that natural boundaries, such as rivers and nálas, have come into the total linear distance of boundary line to a smaller extent this year than last, and further the country traversed by the demarcation in 1891-92, has been rougher and more irregular, so that boundary marks have been required at closer distances.

4.—PRIVILEGES CONCEDED TO VILLAGERS.

49. No restrictions have been made during the year, and no expansions of the privileges, already conceded by Government before the year opened, to the local

population in any of the Collectorates of the Northern Circle. In the Thána Collectorate the concession, allowed last year, of the removal, by villagers of the forest villages which have contributed forest lands to the formation of the forest-block to which a coupe of the season belongs, of all branch-wood less than 6″ in girth, of the felled trees, and the cutting of shrubs and undergrowth, such as brushwood, &c., for use as *ráb* or as firewood according to their pleasure, free of charge, from the coupes of the year which are under exploitation by contractors or purchasers, was taken advantage freely in respect of coupes which are not far distant from villages; but the material was taken almost entirely for use as firewood, and not to any extent for purposes of ash manure; while coupes remote from villages and difficult of access were not indented upon by the villagers for the branch loppings or for brushwood, &c., and this material remained in several coupes with the prospect of rotting on the ground since the contractors cannot take it. No complaints have been received from villagers during the year of contractors having prevented them from taking any of the lopped branchwood under 6″ in girth, but some of the contractors were detected in appropriating some of this neglected branchwood, and were fined for doing so, because it did not belong to them, and they had not received permission to appropriate it; however, the Collector of Thána very judiciously empowered the Divisional Forest Officers to allow the contractors and purchasers of coupes to remove the small branchwood and the undergrowth when it was clear that the villagers would not take it; as it would not only be wasted otherwise, but would cause heavy conflagrations in future years when these areas, closed for reproduction, and full of grass, were fired by mischance. Not a single petition was made asking for permission to go into any of the unsold coupes which had failed to find purchasers, in order to cut and remove timber, firewood or materials for ash manure for local supply; and not a complaint was received on the point of local supply being starved.

50. Forest villagers in the Thána Collectorate do not take full advantage of the privilege given to them of taking branchwood, &c., for ráb or ash manure from the coupes, because vegetation for conversion into ash manure can generally be obtained by them, more conveniently and in sufficient quantities, from other sources of supply, which are nearer to their fields than the coupes; they have the run of all open forests for grass and brushwood and of the Protected Forests for such produce also, and likewise to lop the branches of all but a few kinds of trees. Some experiments were made, by the Divisional Forest Officer, North Thána, during the year to gauge the quantities of ráb and firewood material, placed at the disposal of the forest villagers, by the branchwood and brushwood concessions. Test plots were taken in different coupes of varying constitution, and the material was carefully weighed about 48 hours after it had been cut; and the results were strikingly even; they gave an average yield of about lbs. 10,000 per acre. Free grazing of cattle was allowed to, practically, all the cattle of the forest villages and of some of their neighbouring villages also in the Thána district.

51. In other divisions, and especially in the Deccan, the privilege under the new Grazing Rules of allowing free grazing for the agricultural and milch cattle of all forest villages which have contributed gáirán to the formation of a Reserved Forest, within the entire open forest of the village instead of, as used to be, in the gáirán portion only, has worked very much to the advantage of the owners of such cattle, as the latter enjoy far better pasturage, and have a much broader area to roam over than they had before.

52. The Privilege Code of the Khándesh district is very comprehensive, but by order of Government issued in October 1890, the privileges of free grazing and of cutting of wood and bamboos in all the ranges of West Khándesh, except Sindkheda and Dhulia, were suspended for one year on account of the general prevalence of forest fires; the effect, however, of this suspension not having been as was desired and anticipated, and on a reference to Government on the point, it was ordered, in October 1891, that all suspension of privileges should cease; and consequently the concessionaries have been in the full enjoyment of their liberty in the forests of grazing, cutting and taking. No changes have been made in the Khándesh Code during the year.

53. Owing to the scanty and unseasonable rainfall in the Deccan, areas of closed forest in the divisions in that part of the country, have been opened to cattle

grazing, and to a great extent free of charge, as a special privilege to the forest and other local villagers.

54. The expenditure incurred upon the formation and constitution of Reserved and Protected Forests, during the year, has amounted to Rs, 78,881-6-5 distributed thus :—

	Rs.	a.	p.
(1) Salaries and travelling allowances of Forest Settlement Officers not charged to Forests	30,944	13	3
(2) Salaries and travelling allowances of establishments employed under Forest Settlement Officers and charged in the Forest accounts, and the contingent expenditure of the latter	14,885	6	10
(3) Demarcation of Forest boundaries upon the ground by the construction of special forest boundary marks ...	11,805	7	6
(4) Compensation for land and rights	21,245	10	10
Total ...	78,881	6	5

55. The work actually effected during the year, and represented by the expenditure detailed above, comprises—

(*a*) the settlement of 172 square miles at a cost of Rs. 266·4 per square mile ;

(*b*) the demarcation of 1,453 miles of forest boundary at Rs. 8·1 per mile ; and

(*c*) the purchase of 1,762 acres of land for forest reservation at Rs. 11·8 per acre.

CHAPTER II.

SURVEYS AND WORKING PLANS.

A—SURVEYS.

56. The operations of the Forest Survey Branch of the Government of India, in the Northern Circle during the year, were under the superintendence of Colonel Hutchinson, and were carried on in the divisions of North and South Thána, Násik, Ahmednagar, Poona and Sholápur; and the following statements show a comparison of the work performed and the expenditure incurred on Forest Surveys, during the survey years, ending 30th September 1891 and 30th September 1892, as directed in Government Resolution No. 4515 of the 3rd July 1891, in the Revenue Department :—

Statement showing the Amount and Cost of Work done by No. 2 Camp of No. 17 Party (Bombay Forests) in the Northern Circle during Survey year ending 30th September 1891.

District.	Scale.	Triangulation.			Traversing.			Detail.			General Cost per square mile.	Remarks.
		Area in square miles.	Total Cost.	Cost per square mile.	Area in square miles.	Total Cost.	Cost per square mile.	Area in square miles.	Total Cost.	Cost per square mile.		
			Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs a. p.	Rs. a. p.	Rs. a. p.	
Poona	4″	170	353 15 5	2 1 4	16	368 14 11	23 0 11	124·35	10,852 9 10	87 4 5	112 6 8	Táluka Khed only.
Thána ...	6″	...	...	...	39	946 1 6	24 4 2	52·86	7,576 0 8	143 5 2	...	Táluka Khed.
	...	...	...	...	45	1,091 9 0		39·70	5,690 14 6		...	Traversing is in advance in the Váda Táluka and the detail survey belongs to the Bhiwndi Táluka.
Poona ...	16″	...	...	...	...	...	...	22	4,255 5 3	..	193 6 9	Haveli, Bhimthadi and Sirur Tálukas.
Total ...	...	.	353 15 5	...	...	2,406 9 5	...	...	28,374 14 3	..	*31,135 7 1	*Is the total cost of the Northern Circle.

A.

Statement showing the Amount and Cost of Work done by No. 17 Party (Bombay Forests) in the Northern Circle during Survey year ending 30th September 1892.

District.	Táluka.	Triangulation.			Traversing.			Topography.						Total.
								8".			16".			
		Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate	Area.	Cost.	Cost Rate.	
			Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.
Poona...	Junnar ...	163	522 15 7	3 3 11	(a) 23	522 15 8	22 11 10	...	.....	..	...	.....	.....	1,045 15 8
	Haveli ...	75	1,824 15 9	24 5 8	...	.....	...	50·75	7,085 8 4	139 9 10	...	.....	.....	8,910 8 1
	Indápur ...	...	.....	...	...	.....	...	...	.....	...	15·39	2,111 2 5		2,111 2 5
Ahmednagar ...	Akola, &c. ...	220	449 8 0	2 0 8	..	.....	...	...	.....	...	..	.....		449 8 0
North Thána .	Váda ...	..	.....		(b) 13	483 4 3	37 2 9	(c) 52·27	8,445 1 10	...	...	.....	187 2 10	8,928 6 1
	Bassein ...	...	.....	...	...	.....	...	...	.....	161 0 1	...	.....		.....
South Thána ...	Bhiwndi ...	...	.....	...	...	.....	...	31·02	5,011 11 9	...	...	.....		5,011 11 9
Sholápur ..	Karmála and Mádha ...	...	.....	...	...	.....	...	...	.....	...	(d) 24·43	3,351 4 0	.....	3,351 4 0
	Total ...	458	2,797 7 4	...	36	1,006 3 11	...	134·04	20,542 5 11	...	39·82	5,462 6 5	.....	29,908 7 7
Cost per square mile ...		...	6 1 9	...	...	27 15 3	...	...	160 11 6	...	..	137 2 10	.....	.....

(a) 180 linear miles. All in advance. (b) 57 linear miles in Váda in advance. (c) Bassein. (d) Karmála (13·74) and Mádha (10·69).

B.

Statement showing the Amount and Cost of Work done by No. 17 Party (Bombay Forests) in the Northern Circle during Survey year ending 30th September 1892.

District.	Táluka.	Triangulation.		Traversing.		Topography.				Total.	Remarks.
						8"		16"			
		Area.	Cost.	Area.	Cost.	Area.	Cost	Area.	Cost.		
			Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	Rs. a. p	
Poona	Junnar ..	163	484 1 8	(a)23	497 0 10	..	....	.	....	981 2 6	(a) 180 linear miles. All in advance.
	Haveli .	75	1,747 4 2	.	..	50·75	6,729 15 4	..	....	8,477 3 6	
	Indápur ..	.	....	..	..	..	....	15·39	2,884 0 6	2,884 0 6	
Ahmednagar .	Akola, &c. ..	220	410 10 3	..	..	..	....	..	....	410 10 3	In advance.
North Thána .	Váda and Bassein	.	....	(b)13	457 5 5	(c) 52·27	7,908 15 0	..	...	8,456 4 5	(b) 57 linear miles all in Váda and in advance.
outh Thana .	Bhiwndi ..	..	....	..	..	31·02	4,746 12 6	..	...	4,746 12 6	(c) Bassein.
Sholápur ..	Karmála and Mádha ..	.	....	..	..	..	....	(d) 24·43	4,578 5 11	4,578 5 11	(d) Karmála (13·74) and Mádha (10·69).
	Total	458	2,642 0 1	36	954 6 8	134·04	19,475 10 10	39·82	7,462 6 5	30,534 7 7	
Cost per square mile ..		..	5 12 4	..	26 8 2	..	145 4 8	..	187 6 4	....	

Note.—The only difference that has been made in preparing the Form B (distribution of expenditure) from the Statement A (actual expenditure) is the transfer of Rs. 2,000 from "share of pay and travelling allowance" of Deputy Superintendent from the 8" to the 16" Survey.

57. Colonel Hutchinson, who was in charge of the Survey Party throughout the year, had Messrs. Lawson, S. F. Norman, and C. A. Norman as his Assistants. The 16" Bábul Block Survey work in the Poona and Sholápur divisions was taken in hand early in October under the superintendence of Mr. A. M. Lawson, and very satisfactory progress was made till the end of December, an area of 40 square miles having been accomplished.

58. With a view to the execution of a contoured 8-inch survey of the timber-clad hill of Singhar, which is in Reserved Forest, in order to provide an especial map for the education in forestry of the students, attending the Forest Classes at the College of Science at Poona, it was necessary to fix a good many points on the hill, and it was found easier to do this by a minute triangulation than by a traverse; and accordingly the work was taken in hand on the 10th October, under the personal supervision of Colonel Hutchinson, who completed it by the 25th of December 1891, the detail survey of the hill being reserved for the hot season, which subsequently was taken in hand on the 15th of April, and was finished about the 10th of June.

59. The 8-inch work in Bhiwndi and Bassein tálukas of the Thána District was entrusted to the care of Mr. S. F. Norman, who commenced it with six surveyors early in November, and the work was visited and inspected by the Deputy Superintendent in February.

60. The triangulation and traverse work of the teak forests round Jávli-Báleshwar in the Ahmednagar district, and in the Junnar range of the Poona district, was taken in hand early in January after the completion of Singhar triangulation, and was carried on till the 10th of June, by which time 383 square miles were so treated, fixing 553 points in all. An area of 57 square miles was traversed in the Váda táluka of the Thána District, during April and May under Mr. C. Norman's control.

61. Detailed information of the actual expenditure involved upon each description of work will be found in Statement A given above; the resulting mileage rates, however, require a few remarks, especially with reference to the remarks contained in paragraph 4 of Government Resolution No. 7232, dated 12th September 1892, in the Revenue Department, as to the variation of cost rates in different districts for works classed under the same heading, *viz.*, 8-inch or 4-inch work.

62. The mileage rates in the Northern Circle are:—

	Rs.	a.	p.
16-inch work	137	2	10
8-inch work, Thána District	161	9	1
Singhar work Topographical	139	9	10
Triangulation	24	5	8

while those in the Southern Circle are:—

		Rs.	a.	p.
4-inch, Kánara District.	Topographical	85	6	9
	Triangulation	18	11	10
	Traverse	22	2	8
8-inch, Kolába District		205	7	10

63. In the first place it will be noticed that the 16-inch work is cheaper than the 8-inch work, but this is to be accounted for partly from the absolute flatness of the country surveyed, and the paucity of topographical details met with; and also because that this work has escaped being charged with any superintendence of the Drawing Establishments during the recess; it was done under the immediate supervision of the Deputy Superintendent, whose salary is charged to "General Section."

64. Again it will be noticed that the 8-inch work in the Kolába District is more expensive than that done in the Bhiwndi táluka; the reasons being:—

First.—In the months of November and December when a strong establishment was employed on this work, there was much sickness amongst the sub-surveyors; and consequently a small area was turned out although the expenditure was high.

Secondly.—It will be easily understood that in a Survey Party like the one in question all the sub-surveyors do not work at the same rate, although the slow workers employ the same amount of menial labour, and therefore cost nearly as much as the fast workers.

Thirdly.—The small scattered and broken patches of forests that came under survey in the Kolába District contributed to the increased cost.

65. Again it will be noticed that the Singhar 8-inch work is cheaper than that in either the Kolába or Thána district. This results from the Singhar work being continuous and having been undertaken by the best of the men in the party.

66. As regards the distribution of the total cost of the party between the Northern and the Southern Circles, the Deputy Superintendent states that "the survey requirements do not admit of actual cost rates in different localities being equalized; that this fact should be recognized; and that the rates should be revised accordingly as may appear equitable;" and Statement B given above exhibits the equalized expenditure of the Northern Circle furnished by the Superintendent.

Advance work.

67. In the Poona and Ahmednagar Districts 383 square miles of triangulation have been prepared in the Junnar, Akola and Sangamner tálukas, within

which 180 linear miles of traverse work has been done; this is in hilly but fairly open country; and 13 square miles have been traversed in the Váda táluka also.

RECESS MAPPING.

68. Thána District, 19 sections.—Fair drawn on the 8-inch = 1 mile scale for reproduction at Poona.

Poona District, 6 sections.—A contoured map of Singhar hill fort fair drawn on the 8-inch scale for reproduction.

A revised and extended index map for the Northern Circle.

Sholápur District, 53 sections of 16-inch work.—Fair drawn for reproduction.

69. The Superintendent reports that all his Assistants worked in an able and steady manner, and their assistance was most valuable; and the Conservator must remark that Colonel Hutchinson has co-operated most readily with the Forest Officers, and has done his best to meet all the requirements of forest management in the production of forest maps, which evidence very careful and skilful work, and will be of the highest service in the preparation of working plans for placing the forests under methodical management, for the maintenance and improvement of their capabilities, for supplying timber and other forest produce including grass and grazing.

B.—WORKING PLANS.

70. The Working Plans division was in charge of Mr. T. B. Fry, Deputy Conservator of Forests, 2nd grade, throughout the year. The lines on which the work of this division was carried on were the same as explained in former reports, and the following statement will show the progress of such work during the year:—

No.	Range.	Total Area.	Number of Blocks per Range.	Number of Compartments actually laid out in 1891-92.	Average Area of Compartments actually laid out	REMARKS
	North Thána Division.	Acres.				
1	Máhim	81,843	41	36	42	
2	Bassein	51,230	23	23	51	
3	Sálsette	14,441	10	16	34	
4	Váda	80,568	33	50	59	
5	Dáhánu	107,351	45	56	58	
6	Umbargaon	23,008	12	18	46	
	Total ...	358,441	164	199	52	Average area of normal compartment is 54 acres.
	Total during 1890-91 ...	358,441	165	105	*54	* Average area of normal compartment.
	South Thána Division.					
1	Kalyán	32,178	16	18	43	† The difference in the total area is due to the transfer of two ranges, Karjat and Khálápur, from South Thána to Kolába Division, and to some extent to the rectification of area against Mokháda.
2	Murbád	71,712	20	20	51	
3	Bhiwndi	46,099	20	21	45	
4	Mokháda	40,190	16	3	56	
5	Khardi	} 149,366	52	80	53	
6	Sháhápur					
	Total ...	† 339,545	124	142	50	Average area of normal compartment is 68 acres.
	Total during 1890-91 ...	393,822	143	109	‡69	‡ Average area of normal compartment.

71. The two forest divisions of Thána have, as heretofore, claimed the attention of the Divisional Forest Officer, Working Plans, to a far greater extent than any other division of the Northern Circle; 442 compartments were thus actually laid out on the ground by the erection of 1,132 cairns and 32,112 stones during the year, covering an area of 17,949 acres at a cost of Rs. 1,566 or Rs. 3½ per compartment, as shown in the statement given below:—

No.	Division.	Range.	Number of Compartments	Cairns	Stones.	Aggregate Area of Compartment.	Cost.	Average Cost per Compartment.	Average Cost per Acre.	Remarks.
						Acres.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	North Thána ..	Váda . .	50	222	3,892	2,957	250 4 10	5 0 1	0 1 4	
		Umbargaon ..	18	54	1,528	836	76 1 6	4 3 8	0 1 5	
		Dáhánu	56	204	5,041	3,250	247 15 0	4 6 10	0 1 3	
		Máhim	36	150	2,250	1,529	148 7 0	4 1 11	0 1 7	
		Bassein .. .	23	7	1,828	1,271	72 11 6	3 2 7	0 0 11	
		Sálsette .. .	16	31	861	540	50 15 0	3 2 11	0 1 6	
2	South Thána ..	Bhiwndi .	21	18	1,796	961	66 9 6	3 2 9	0 1 1	
		Kalyán	18	82	2,055	766	82 6 0	4 9 2	0 1 9	
		Murbád	20	76	2,186	1,015	103 3 0	5 2 7	0 1 7	
		Sháhápur ..	80	271	3,267	4,274	357 7 0	4 7 6	0 1 4	
		Mokháda.. .	3	6	214	107	12 2 0	4 10 8	0 1 2	
3	Poona	Bábul Blocks ..	101	11	2,194	393	97 14 0	0 15 6	0 4 0	
		Total ..	442	1,182	32,112	17,949	1,566 0 4	3 8 9	0 1 5	
		Total during 1890 91 ..	214	583	16,516	10,911	808 10 9	3 12 5	0 1 2	

72. In the Poona division Bábul Reserves to the extent of some 16,000 acres, worked under a provisional scheme prepared by Mr. Wroughton, were also dealt with by the Working Plans division. The teak forests about Singhar and Donja near Khadakvásla were also inspected by Mr. Fry, in order to obtain a clear idea of their nature, extent and distribution over the hill sides, with a view to the preparation of working plans in respect of them.

73. No work was performed in the Sátára division by the field establishment of this branch, but Mr. Fry made a tour of inspection in the Warna and Koina valleys to ascertain the general character, distribution, &c., of the forests along the Ghát line, and to form an opinion as to the practicability and utility, from a forest point of view, of opening out roads, the ultimate object of such roads being to open out the country generally, and to serve as export roads for forest produce at the same time, and he has reported that it is doubtful whether any considerable expenditure could be justified, as the timber-yielding capabilities of all the forests which would be tapped are very low at present, and that for protective purposes, on the other hand, these forests cannot be too highly valued, and unfortunately they are much too limited in extent to fully protect the head waters of the two rivers.

74. The following work was performed during the rainy season by the establishment of the Working Plans branch :—

(*a*) Mounting of a large number of village maps required for use in conjunction with Topographical Block Maps.

(*b*) Working out areas and marking out on each village map all the compartments in the Bhiwndi range.

(*c*) Printing Block number, &c., for each of the Bhiwndi Blocks.

(*d*) Drawing Compartment Index Map of the foregoing to show the general outline of each compartment.

(*e*) Entering on 4 inch scale map all compartments laid out in the previous season in the two Thána divisions, showing any corrections or modifications of each finally passed as correct on the Block Maps.

(*f*) Re-scaling of a number of Block Maps of Mokháda, Dáhánu, Umbargaon, &c., and the revision work of the Bábul Blocks in the Poona division.

75. Mr. Fry, as usual, delivered a series of lectures to the students of the Forest Class at the College of Science, Poona, during the rainy season of 1891, on the elements of Forestry and the Forest Act.

76. The total expenditure of the Working Plans division during the year amounted to Rs. 19,705 against Rs. 16,619 in the year preceding. Looking at the results of working as a whole, the operations have undoubtedly been executed more economically during the year than in the previous year, the average cost per compartment being Rs. 3-8-9 against Rs. 3-12-5. The average cost per acre is pretty nearly the same, with the exception of the Bábul Blocks in the Poona

division, where the number is large and the area small, and the cost of laying them out was not commensurate with their size.

77. The Divisional Forest Officer, Working Plans, reports that both the Divisional Forest Officers of North and South Thána rendered him most efficient aid in testing the work of the Field Establishment, not only by seeing that the work on the ground corresponded with the coupe maps, but also by satisfying themselves that the several compartments had been properly located in accordance with the natural features of the ground, as depicted on the Topographical Maps, and that although such an inspection entailed additional work on the Divisional Forest Officers, still a better check was, no doubt, kept upon the work of Field Establishment, than could have been done by the Working Plans Officer, single-handed.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—ESTABLISHMENTS.

78. Proposals for re-organizing the Forest Service in order to supply the recognized deficiency in the numerical strength of the establishments, chiefly by providing for the gradual development of indigenous agency, were submitted in October 1890, by the Government of India for the consideration of Her Majesty's Secretary of State for India, whose sanction to it was received by the Government of India on the 26th February 1891, and was published in this Presidency in Government Resolution No. 5685, dated 18th August 1891, in the Revenue Department. The revision scheme divides the superior forest service into two branches :—

First, the Imperial Forest Service of India to be recruited solely by officers directly appointed by the Secretary of State for India; and

Second, the Provincial Forest Service to be recruited entirely in India.

But effect was not given to this scheme during the year, and consequently there was no change in the controlling staff of the Forest Department, Northern Circle, which consisted of 1 Conservator of Forests and 13 Deputy and Assistant Conservators of Forests as in the year before. Some of these officers were absent on leave as under :—

Mr. R. C. Wroughton, Deputy Conservator of Forests, 1st Grade, and Divisional Forest Officer, Poona, on privilege leave for three months, granted to him in Government Resolution No. 1478, dated 27th April 1891, Financial Department.

Mr. H.W. Keys, Deputy Conservator of Forests, 4th Grade, and Divisional Forest Officer, Panch Mahâls, on privilege leave for three months, sanctioned under Government Resolution No. 2631, dated 24th July 1891, Financial Department.

79. Of the class Sub-Assistant Conservator, there are seven permanent appointments allotted to the Northern Circle, and they have been all occupied through-out the year.

80. The sanctioned complement of the subordinate Forest Establishment of the Northern Circle has been reduced by the following strength, owing to the transfer of the establishment belonging to the Karjat táluka and Kháláپur petha from the Northern Circle to the Southern Circle :—

1	Forester, 2nd Grade	Rs.	30
1	Forester, 3rd Grade	„	20
4	Forest Guards at Rs. 12...	„	48
7	do. at „ 10 each	„	70
4	do. at „ 9 each	„	36
14	do. at „ 8 each	„	112
31	do. at „ 7 each	„	217
	Total Monthly Cost	Rs.	533

And the following statement will show the distribution and cost which amounts to Rs. 20,970 per mensem, of the existing sanctioned staff of the Northern Circle, exclusive of the strength mentioned above :—

No.	Divisions.	Number of Ranges.	Range Forest Officers. Rangers. Rupees 100.	Rupees 80.	Rupees 60.	Rupees 50.	Foresters. Rupees 40.	Rupees 30.	Rupees 20.	Forest Guards. Rupees 15.	Rupees 12.	Rupees 10.	Rupees 9.	Rupees 8.	Rupees 7.	Remarks.
1	North Thána ..	6								6	14	25	25	70	90	The pay of rangers and foresters is personal, and they are liable to be transferred from one range to another as the exigencies of the service may require. Consequently the number of appointments, in each grade is shown in lump for the whole Circle.
2	South Thána ..	6								8	10	18	19	50	84	
3	East Khándesh ..	13								8	16	20	20	40	75	
4	West Khándesh ..	10								7	14	18	18	50	102	
5	Násik	14								10	20	25	26	50	158	
6	Ahmednagar.. ..	11	3	4	6	12	20	29	29	6	12	22	22	50	85	
7	Poona..	11								9	17	26	25	60	120	
8	Sátára..	14								9	18	24	22	57	102	
9	Sholápur	7								3	6	11	8	16	68	
10	Surat	6								2	4	4	6	18	27	
11	Panch Mahále ..	5								2	5	10	10	30	48	
	Total ..	103	3	4	6	12	20	29	29	70	136	203	201	497	949	

81. In addition to the above the following temporary establishment was in entertainment throughout the year, in the divisions of Násik and Poona, where the existing permanent staff is inadequate to cope with the work of protection and management of the forest estates entrusted to their care :—

No.	Division.	Forest Guards. Rs. 8.	Rs. 7.	Total.	Remarks.
1	Násik	3	3	6	Total monthly cost, Rs. 375.
2	Poona	15	30	45	
	Total ...	18	33	51	

82. Proposals for the re-organization of the subordinate forest staff, referred to in paragraphs 103 and 104 of last year's report, have not been sanctioned yet, but are still under the consideration of Government.

83. The following statement will show the existing strength and cost of the office establishment of the Northern Circle in which there was no change during the year :—

No.	Division.	Number and Gradation.											Monthly Cost.
		Clerks.								Peons.			
		Rs. 100.	Rs. 80.	Rs. 60.	Rs. 50.	Rs. 40.	Rs. 30.	Rs. 20.	Rs. 15.	Rs. 10.	Rs. 9.	Rs. 8.	
													Rs
1	Direction	1	1	1	2	2	2	2	...	1	1	5	579
2	North Thána	...	...	...	1	1	1	1	2	...	1	3	203
2	South Thána	...	...	...	1	1	1	1	2	...	1	3	203
4	East Khándesh ...	...	...	...	1	...	1	2	2	...	1	3	183
5	West Khándesh ...	...	...	...	1	...	1	2	2	...	1	3	183
6	Násik	...	...	...	1	...	1	2	2	...	1	3	183
7	Ahmednagar	...	...	...	...	1	1	2	2	...	1	3	178
8	Poona	...	...	...	1	...	1	2	2	...	1	3	183
9	Sátára	...	...	...	1	...	1	2	2	..	1	3	183
10	Sholápur	...	...	...	...	1	1	2	1	...	1	3	158
11	Surat	...	...	...	1	...	1	2	2	...	1	3	183
12	Panch Mahále... ...	...	...	...	...	1	1	2	1	...	1	3	158
13	7 Sub-Assistant Conservators' Offices ...	...	...	...	...	...	...	...	7	...	...	14	217
	Total ...	1	1	1	10	7	13	22	27	1	12	52	2,789

84. The total expenditure incurred upon forest establishments during the year has amounted to Rs. 4,58,993-3-9 as under :—

	Rs.	a.	p.
B. *I.a.*—Conservator's salary	18,000	0	0
B. *II.a.*—Conservator's travelling allowance ...	2,400	0	0
B. *I.b.*—Superior officers' salary	1,03,385	15	5
B. *II.b.*—Superior officers' travelling allowance ...	25,865	0	11
B. *I.c.*—Subordinate protective establishment's salary ...	2,49,169	13	8
B. *II.c.*—Subordinate protective establishment's travelling allowance	14,774	2	2
B. *I.d.*—Office establishment's salary	34,256	1	3
B. *II.d.*—Office establishment's travelling allowance ...	11,142	2	4
Total ...	4,58,993	3	9

2.—GENERAL PROTECTION AND BREACHES OF THE FOREST LAW.

85. Sixty-five cases of criminal prosecutions were awaiting trial by Magistrates when the official year opened ; four of these cases belonged to the two ranges, Karjat and Khálápur, which have been transferred to the Southern Circle, and they have therefore been deducted from the opening balance, which was then left at 61 : during the year 1891-92, 1,314 new cases were sent up to the Criminal Courts, making 1,375 cases on the registers. Out of this number, 1,262 cases were disposed of during the year, with the result that in 988 cases convictions were obtained and 274 cases were acquitted. 2,489 persons were convicted and punished, and 889 persons escaped under the 274 cases, which were acquitted. At the close of the year 113 cases were awaiting trial.

86. The following table furnishes a comparative statement of the number of cases tried before Magistrates for breaches of the forest law, during the year under report and the year preceding, with the results of the trials :—

No.	Division.	1890-91.		1891-92.		Percentage of failures.		Remarks.
		Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1890-91	1891-92.	
1	North Thána	214	25	158	18	11·6	11·3	
2	South Thána	130	41	113	30	31·5	26·5	
3	East Khándesh	119	14	44	8	11·7	18·1	
4	West Khándesh	126	23	76	18	18·2	23·6	
5	Násik	87	30	118	18	34·5	15·2	
6	Ahmednagar	95	31	166	36	32·6	21·6	
7	Poona	474	110	241	58	23·2	24·0	
8	Sátára	37	11	105	27	29·7	25·7	
9	Sholápur	97	24	176	55	24·7	31·2	
10	Surat	4	3	3	1	75·0	33·3	
11	Panch Maháls	50	10	62	5	20·0	8·0	
	Total ...	1,433	322	1,262	274	22·4	21·7	

87. In the North Thána division some bad cases of looting the forests were discovered in the Bassein range. The contractor of the Shirgaon coupe was prosecuted before the Second Class Magistrate, because some standards had been felled illicitly in the coupe, it is alleged by his direction, and a conviction was obtained, and the contractor and one of his servants were sentenced each of them to 15 days' simple imprisonment, and the former to a fine of Rs. 100 in addition. But on appeal the conviction was upset on a technical point. The Sálsette forests are looted pretty considerably by men and women who resort to them for the removal of firewood in head-loads, for sale in the suburbs of the city of Bombay, the coast villages of Sálsette, and in the town of Thána; these people manufacture dead wood by ringing and killing young trees, and it is very difficult to catch them in the act, and to stop this head-load depredation; the commercial value assessed by a village panch of a bundle of faggots is small, and the offence viewed in this aspect is one of "light gravity" which does not call for heavy punishment, consequently the venture of running head-loads is a paying business. There is no extensive looting in any of the other ranges, but Dhowda (Anogeissus latifolia) saplings are felled and stolen for cart-axles, and Khair trees (Acacia catechu) for ploughs. The system of working plans with numerous blocks and coupes has done very much to extinguish the heavy looting of the Thána forests for the export trade, which used to be proverbial. The number of cases sent up to the Courts for trial is 25 per cent. less than during the year before, and gives about one to every 3,000 acres of forest; the percentage of failures is a trifle lower than before.

88. In the South Thána division the number of cases prosecuted has decreased by 21·5 per cent., owing in a measure to the loss of two ranges, Karjat and Khálápur, and also to the completion of the Tánsa water-works, and the consequent disappearance of the thousands of labourers, who were employed upon the duct-line, which passes in a tortuous course through the division from east to west. Concurrently the number of acquittals has decreased by 5·9 per cent. The following figures are instructive; and seeing that the forests are scattered over 660 square miles of country, they cannot be regarded as unsatisfactory, especially as the protection of the forests against thefts is, except in a few localities, very fair:—

Range.	Number of Cases.	Number of Persons prosecuted	Number of Persons convicted.	Number of Persons acquitted.	Number of Persons awaiting trial.	
Bhiwndi	47	86	66	20	83	13 cases.
Sháhápur	20	68	48	20	...	
Khardi	17	40	33	7	27	
Mokháda	4	13	13	...	...	
Kalyán	20	41	36	5	...	
Murbád	22	63	49	19	...	
Total ...	130	311	245	71	60	13

89 The following cases are worthy of brief mention :—

(1) In the Murbád range 26 Kolis descended from the Junnar táluka above the Sahyádris, and made a raid upon the Palu forest, and were detected by three forest guards, who were unable to arrest them as the Kolis showed fight; but the guards followed them up the gháts to Junnar, where the Kolis were caught with the stolen timber, and on being prosecuted, ten accused were sentenced to one month's rigorous imprisonment, two to 15 days' rigorous imprisonment, and one, a boy of 15 or 16 years age, to 8 days' rigorous imprisonment. The others got off for want of evidence.

(2) In the Khardi range about 100 teak trees were felled in the Temburli forest by one Narayen Tukajirao of Temburli, who showed a permit alleged to have been given him by the Mámlatdár as his warrant, but it was found to be a forgery; and he was fined, convicted and sentenced to two years' rigorous imprisonment.

(3) Four persons of Gholsai were caught by Annaji Babaji, Forest Guard, felling a teak tree, and were tried, convicted and sentenced, two of them to a fine of Rs. 30 each, and the other two to a fine of Rs. 20 each. The timber felled by them, with the cart, bullock and axes used in the commission of the offence were confiscated and sold for Rs. 77. This abnormally heavy punishment has had a deterrent effect which the usual punishments in such cases of petty fines failed to secure.

90. In the East Khándesh division the number of prosecutions shows a decrease of 75 per cent., but the percentage of failures has risen from 11·7 to 18·2. The reason for the fewer number of prosecutions is, that all cases of breach of the rules under Section 41 of the Forest Act were compounded, and none were sent into the Criminal Courts; and the Divisional Forest Officer explains that the reason for the increase in the acquittal is that the Subordinate Magistrates are reluctant to convict, although the offence may be proved, when a criminal intention has not been exhibited. The District Magistrate has remarked: "There is no doubt a tendency in Magistrates to look to the intent in all cases brought before them, but a circular is being issued, which it is hoped may be of some assistance." After all it should be remembered that 800 square miles of forest lands, spread over a very large area, are affected, and out of 44 cases prosecuted, or 1 case to about 12,000 acres, 8 only have been let off.

91. The number of prosecutions in West Khándesh is 40 per cent. less than of the preceding year, but nearly one-fourth were acquitted. The Divisional Forest Officer explains that great care is taken to thoroughly scrutinize every case before it is sent into Court; and seemingly the rock upon which the prosecutions have come to grief is "no criminal intention." A pátíl was charged in the Nandurbár range with setting the forests on fire while smoking, and also with bribing the villagers with Rs. 20, not to tell against him: he was tried and acquitted on the charge of firing the forest, but was found guilty of bribery and was sentenced to a fine of Rs. 50. In this division there are over 1,200 square miles of forest, and 76 cases have been prosecuted, or one case in about 9,600 acres; of these 18 were let off.

92. An increase in the number of prosecutions appears in the Násik division, 118 cases, of which 20 were old, having been tried, affecting a forest area of nearly 1,200 square miles; the number of acquittals is only 18; and the percentage of failures has decreased from 34·5 to 18·0. The greater number, 54, of the new cases of the year were for grazing within closed forest wherein grazing is prohibited.

93. In the Ahmednagar district also the number of prosecutions has increased from 95 to 166: here we have 831 square miles of forest, and strict forest protection especially important as the climatical conditions are not favourable to the reboisement of barren uplands. The number of acquittals is 36, and the percentage has declined from 32·6 to 21·6. In 171 cases of discovered forest offences the offenders could not be found. In 136 trivial cases the offenders were let off with caution.

94. The prosecutions in the Poona division have fallen from 474 cases to 241, of which 58 failed to secure conviction, the percentage of failures having risen slightly from 23·2 to 24·0; 133 of the cases were for illicit grazing.

95. The Sátára division sent up 105 cases to the Courts, against 35 of the previous year, and 27 failed, which gives a percentage of 25·7. In two ranges there were no prosecutions, and in two others no acquittals; in the Sátára range one prosecution only, which succeeded; 164 discovered cases, in respect of which the offender was not found, were reported. The District Magistrate remarks: "The village Pancháyats are prone to take a lenient view of forest offences and assess the damages done at a low rate; so also there is a tendency on the part of Magistrates to inflict light punishments for forest offences, and hence very little fear is felt by such offenders when they are caught."

96. In the Sholápur division 176 cases were tried during the year; thus there has been an increase of 79; and the dismissals were 55 against 24 of the previous year, the percentage of failures having risen from 24·7 to 31·2.

97. Only three cases were taken into the Magistrate's Court in the Surat division, and one of these was dismissed through the witnesses having turned round, but the Magistrate recorded his conviction of the accused's guilt. In addition to these cases a forest guard, Kánchanprasád Hirámán, was prosecuted before the Assistant Political Agent of Khándesh for extorting money under threat from a Dáng villager caught collecting mhowra flowers, and he was convicted and sentenced to three months' rigorous imprisonment.

98. An increase in the number of cases prosecuted is likewise apparent in the Panch Maháls division, the figures having risen from 50 to 62, but the percentage of failures has declined from 10 to 8. Sixty of the cases were for illicit felling of trees or stealing timber, and 110 persons were convicted and punished in connection with them.

99. Taking the whole of the Northern Circle with its 8,663·5 square miles of forest under conservancy administration of the Forest Act, it cannot be urged that Forest Officers have been precipitate in sending up cases to Criminal Courts, for it will be seen that the average given is about 1 case to 4,393 acres of forest land. Forest reserves are spread over the face of nature, representing a very large expanse of country, and the difficulty of protecting them is consequently much greater than if they were in a solid compact mass. Density of population, the state of a district in regard to its ligneous vegetation, and conditions of supply and demand are important factors in determining the proportions of forest crime; and it may be very safely urged that in the Deccan districts, while the difficulties of protecting forest growth are more considerable, the temptations to commit offences are beyond measure greater than existing, in Kánara for instance, with its magnificent forests of splendid timber of untold wealth and a comparatively sparse population, having no great and hungry market within its limits or at its threshold.

100. The distribution of the 113 cases remaining pending in the Criminal Courts at the close of the year in the different divisions is:—

No.	Division.	Number of Cases.
1	North Thána	9
2	South Thána	17
3	East Khándesh	9
4	West Khándesh	5
5	Násik	18
6	Ahmednagar	14
7	Poona	9
8	Sátára	17
9	Sholápur	13
10	Surat	.....
11	Panch Maháls	2
	Total ...	113

101. The following statement gives a classification of the new cases of the year of this report:—

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other Offences.	
1	North Thána	37	8	6	107	158
2	South Thána	110	...	3	...	113
3	East Khándesh	9	11	14	10	44
4	West Khándesh	8	3	32	33	76
5	Násik	40	...	...	78	118
6	Ahmednagar	15	9	2	140	166
7	Poona	21	39	10	171	241
8	Sátára	29	12	...	64	105
9	Sholápur	...	6	1	169	176
10	Surat	3	...	...	...	3
11	Panch Maháls	53	7	...	2	62
	Total ...	325	95	68	774	1,262

102. The number of cases compounded under Section 67 of the Forest Act during the year of the report, and the year before, is given in the following statement as directed in Government Resolution No. 3527, dated 2nd May 1884, in the Revenue Department:—

No	Division.	Taken into Court.		Compounded under Section 67 of the Forest Act.		Total number of Cases.	
		1890 91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
1	North Thána	214	158	99	96	313	254
2	South Thána	130	113	356	254	486	367
3	East Khándesh	119	44	1,246	1,570	1,365	1,614
4	West Khándesh	126	76	1,168	1,248	1,294	1,324
5	Násik	87	118	1,029	1,472	1,116	1,590
6	Ahmednagar	95	166	2,481	2,941	2,576	3,107
7	Poona	474	241	1,707	2,061	2,181	2,302
8	Sátára	37	105	147	923	184	1,028
9	Sholápur	97	176	1,553	1,608	1,650	1,784
10	Surat	4	3	20	17	24	20
11	Panch Maháls	50	62	111	135	161	197
	Total ...	1,433	1,262	9,917	12,325	11,350	13,587

103. The classification of the cases compounded during the year is given below, as desired in Government Resolution No. 7232, dated 12th September 1892, Revenue Department:—

No.	Division.	Offences relating to the misappropriation of				Total.	Remarks.
		(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other Offences.		
1	North Thána	41	24	21	10	96	
2	South Thána	200	...	11	43	254	
3	East Khándesh	2	217	660	691	1,570	
4	West Khándesh	114	184	764	186	1,248	
5	Násik	561	...	9	902	1,472	
6	Ahmednagar	14	205	1	2,721	2,941	
7	Poona	79	323	10	1,649	2,061	
8	Sátára	112	297	...	514	923	
9	Sholápur	4	12	1	1,591	1,608	
10	Surat	9	4	4	...	17	
11	Panch Maháls	92	11	24	8	135	
	Total ...	1,228	1,277	1,505	8,315	12,325	

104. The sums realised from cases compounded under Section 67 of the Forest Act, in the several divisions of the Northern Circle, during the year under report, are given in the following statement as directed in Government Resolution No. 8738, dated 24th December 1887, in the Revenue Department; this money is credited without any deduction in respect of any rewards which may have been given to persons who may have contributed to the detection of cases, under Receipts V (*c*), in accordance with the system of classification of Forest accounts, prescribed in the list published with Government Resolution in the Revenue Department, No. 2420, dated 8th April 1891; previously all sums realised by way of compensation for damage done to a forest were classified and credited as revenue of the forest damaged:—

No.	Division.	Amount.			Remarks.
		Rs.	a.	p.	
1	North Thána...	326	13	6	
2	South Thána...	542	15	3	
3	East Khándesh	5,717	0	2	
4	West Khándesh	5,719	11	1	
5	Násik	4,828	1	2	
6	Ahmednagar...	5,290	14	2	
7	Poona	3,857	12	7	
8	Sátára	1,688	8	6	
9	Sholápur	2,164	14	4	
10	Surat	106	2	3	
11	Panch Maháls	170	14	6	
	Total ...	30,413	11	6	

105. The following statement exhibits the number of compounded cases in respect of which rewards have been paid to persons, who have contributed to the detection of the cases, together with the amounts paid in rewards, under the rule embodied in Government Resolution No. 8568, dated 16th December 1887, in the Revenue Department, which reads thus: "Rewards to persons contributing to the detection of a case may be given up to a maximum, in each case, of Rs. 10 and within the limit of the sum realised by the Divisional Forest Officer, and above Rs. 10 and within the limit of the sum realised by the Conservator":—

No.	Division.	Number of Cases.	Rewards amounting to											Total Amount paid.	Remarks.
			Re. 1.	Rs. 2.	Rs. 3.	Rs. 4.	Rs. 5.	Rs. 6.	Rs. 7.	Rs. 8.	Rs. 9.	Rs. 10.	More than Rs. 10.		
1	North Thana .	...	...	...	...	...	...	Nil.	..	...	...	...	...	..	
2	South Thána ...	..	..	...	...	..	...	Nil.	...	...	...	...	...	...	
3	East khándesh ..	20	2	4	5	1	3	...	1	...	...	1	*3	107	* But below Rs. 20.
4	West Khándesh ...	414	273	71	33	14	7	3	5	...	1	7	...	737	
5	Násik ...	52	†28	8	1	2	6	1	1	1	1	1	2	138	† Out of this 17 cases are for rewards below Re. 1.
6	Ahmednagar ...	3	...	...	...	...	1	...	...	...	...	2	...	25	
7	Poona	..	...	...	...	...	...	Nil.	...	...	...	...	..	...	
8	Sátára	678	‡597	62	14	2	2	..	1	...	...	...	...	264	‡ Out of this, 574 cases are for rewards below Re. 1.
9	Sholápur	...	...	...	...	..	...	Nil.	...	...	...	...	...	...	
10	Surat	...	..	...	...	...	...	Nil.	...	...	...	...	..	...	
11	Panch Maháls ...	...	...	...	...	...	..	Nil.	...	...	...	...	...	...	
	Total ...	1,167	900	145	53	19	19	4	8	1	2	11	5	1,271	

106. It will be seen that in a total number of 1,167 cases rewards aggregating Rs. 1,271 were paid against a total number of 12,325 cases compounded with a total sum of Rs. 30,413-11 6 credited in compensation. The cost of rewards is charged in the Forest Accounts to A IX c. against Budget provision.

107. The following statement shows—

(1) the number of cases sent up to the Divisional Forest Officer for consideration under Section 67 of the Forest Act;

(2) the number of cases in which the compensation offered by the accused has been accepted by Forest Officers;

(3) the number of cases which were considered by the Divisional Forest Officer to be too trifling for notice under Section 67, and which were dismissed accordingly;

(4) the number of cases in which appeals were made;

(5) the manner in which appeals were disposed.

This statement was directed by Government Resolution No. 1899, dated 13th March 1891, paragraph 11:—

No.	Division.	Number of Complaints disposed of under Section 67	Number of Cases in which Compensation has been accepted.	Number of Appeals against the Proceedings.	Manner in which Appeals have been disposed of.	Remarks.
1	North Thána ..	96	96	Nil.	...	
2	South Thána ...	254	254	"	...	
3	East Khándesh...	1,570	1,570	"	...	
4	West Khándesh ..	1,248	1,248	"	...	
5	Násik	1,472	962	"	...	In 510 cases the offenders were let off with a warning.
6	Ahmednagar ...	2,941	2,941	"	...	In Ahmednagar the Divisional Forest Officer let off many cases wherein the village panch had assessed the damages at below 4 annas.
7	Poona	2,061	2,061	"	...	
8	Sátára	923	923	"	...	
9	Sholápur ...	1,608	1,608	"	...	
10	Surat	17	17	"	...	
11	Panch Maháls ...	135	132	"	...	In 3 cases the offenders were let off with a warning.
	Total ...	12,325	11,812	Nil.	Nil.	

108. The appeal shown as "not disposed of during the year" against Násik in the statement embodied in paragraph 118 of last year's report was decided by the District Magistrate, who reduced the amount of compensation which had been fixed originally, and the reduced sum was then offered by the accused, and was accepted by the Divisional Forest Officer.

109. The following statement shows the progressive increase of cases compounded by Forest Officers in the Northern Circle since 1882-83, under Section 67 of the Forest Act. Only two appeals have been made in the ten years against the order of the Divisional Forest Officers, in the 51,668 cases settled by them outside the Magisterial Courts:—

No.	Division	Number of cases compounded during the years.										Remarks
		1882-83.	1883-84	1884-85.	1885-86.	1886-87	1887-88.	1888-89.	1889-90.	1890-91.	1891 92.	
1	North Thána	8	11	13	39	23	26	38	46	90	96	
2	South Thána	28	31	31	31	107	182	306	211	356	254	
3	East Khándesh	122	61	126	144	117	158	280	446	1,216	1,570	
4	West Khándesh . ..	58	40	890	254	195	254	454	492	1,168	1,248	
5	Násik	73	79	195	564	828	714	1,137	852	1,029	1,472	
6	Ahmednagar	50	268	1,132	1,929	1,805	2,115	2,199	2,157	2,481	2,941	
7	Poona	50	61	133	278	463	449	439	742	1,707	2,061	
8	Sátára		...	49	67	54	186	250	240	147	923	
9	Sholápur	58	193	317	461	623	977	952	1,165	1,553	1 608	
10	Surat	...	.	3	4	10	21	17	26	20	17	
11	Panch Maháls	...	4	11	56	78	65	82	68	111	135	
	Total .	453	750	2,810	3,827	4,305	5,142	6,154	6,485	9,017	12,325	

110. The classification of the sums of money accepted under Section 67, in amounts of rupee one and upwards, to the maximum permitted by the law, is

given in the following statement, as directed in Government Resolution No. 1899, dated 13th March 1891, in the Revenue Department :—

No.	Division.	Number of cases in which compensation was fixed at Rupees																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	North Thána ..	36	19	10	6	8	5	..	5	..	4	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..
2	South Thána ..	183	35	10	9	6	2	3	1	1	1	..	..	1	1	..	..	..	..	.	..	..	1	..	..	..
3	East Khándesh.	882	200	88	54	69	36	28	31	17	24	14	19	5	3	15	6	7	3	1	8	3	5	8	4	7
4	West Khándesh	547	178	93	86	62	44	26	30	18	33	10	20	7	7	9	6	1	2	4	11	2	3	2	..	6
5	Násik	369	140	97	76	57	42	30	18	8	22	..	15	..	..	25	..	..	..	..	24	..	..	.		19
6	Ahmednagar ..	1,667	612	266	122	65	44	40	25	13	10	8	7	11	5	7	1	8	..	1	1	2	..	1	3	2
7	Poona	1,226	395	156	92	68	25	25	16	9	12	2	3	2	3	2	4	2	2	..	3	..	1	.	.	5
8	Sátára .	466	187	90	55	36	24	17	13	3	7	6	4	3	1	2	..	..	1	..	2	..	.	..	1	1
9	Sholápur .	1,022	295	125	56	36	21	12	15	6	3	2	..	1	3	3	..	1	2	..	..	1	4	..	.	..
10	Surat	7	..	5	..	1	..	..	..	2	..	..	..	..	..	.	..	..	..	1	..	..	..		..	..
11	Panch Mahále .	111	11	4	2	..	..	2	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	.	..
	Total ...	6,516	2,072	944	558	408	243	178	154	77	122	42	68	30	25	63	17	19	12	7	49	8	14	6	8	40

No.	Division	Number of cases in which compensation was fixed at rupees—*continued.*																								
		26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	Total.
1	North Thána ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	96
2	South Thána ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	254
3	East Khándesh.	4	2	..	1	5	1	5	2	..	.	..	.	1	..	1	1	2	..	..	1	2	..	.	2	8	1,570
4	West Khándesh	1	2	2	1	5	1	..	1	3	2	.	.	2	4	5	1	1	1	..	..	..	..	..	..	9	1,248
5	Násik . ..	..	..	..	..	13	..	..	..	..	..	..	..	..	..	9	..	..	..	..	..	..	..	..	..	8	962
6	Ahmednagar ..	..	..	1	1	1	..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	8	2,941
7	Poona . .	2	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	.	..	1	..	3		2,061
8	Sátára	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..		923
9	Sholápur ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..		1,608
10	Surat . ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..		17
11	Panch Mahále .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	132
	Total ..	8	4	3	4	24	2	8	4	4	2	..	..	3	5	16	2	3	1	.	1	2	..	3	2	36	11,812

111. The number of cases disposed of by Assistant Collectors under Section 43 of the Land Revenue Code, in accordance with Government Resolution No. 7844, dated 3rd October 1884, in the Revenue Department, in respect of the Protected Forests of the two Thána divisions, as compared with that of the preceding year, is given in the following statement :—

No.	Division.	1890-91.					1891-92.					Remarks.
		Number of Cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of Fines.	Number of Cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of Fines.	
			Rs. a. p.			Rs. a. p.		Rs. a. p.			Rs. a. p.	
1	North Thána ...	*44	73 0 0	...	2	119 0 0	5	8 5 8	...	5	6 7 9	*Out of the 42 cases remaining undisposed of last year 14 have been disposed of during 1891-92 and 28 still remain to be disposed of.
2	South Thána ...	6	36 0 0	...	6	8 0 0	1	1 8 0	...	1	1 8 0	
	Total ...	50	109 0 0	...	8	127 0 0	6	9 13 3	...	6	7 15 9	

112. There was a decrease on the whole in the number of prosecutions taken into the Criminal Courts, being 1,262 against 1,433 in the year preceding, but on the other hand, there was an increase of 2,408 in the number of cases compounded under Section 67 of the Forest Act, during the official year ending the 31st March 1892.

113. The Collector's remarks on the East-Khándesh administration report, on this head, read as under:—

"Considerable more use has been made of the provisions of the Act which allows cases to be compounded, there being a total increase of 324 cases as compared with 1890-91. This increase is chiefly in minor breaches, grazing, &c., and it is much better to treat these cases in this way than to spend time and money in prosecuting the offenders. No doubt, as pointed out by Mr. Desái, the temptation to graze now in closed areas is greater than before. There may come a time then when it will become necessary to treat such offences more severely in order to check the increasing inclination to trespass in closed forest"

114. The Collector of Sátára remarks that many cases under Section 67 of the Forest Act were left undisposed of by the previous Divisional Forest Officer, and Mr. Fagan had to clear them off. "There is no undue use of this section now."

115. The Collector of the Panch Maháls has recorded: "Prosecutions and compoundings show an increase over the previous year. It is satisfactory to note that the percentage of failure in action of the former sort is reduced, and the procedure of the Divisional Forest Officer appears to have been generally judicious. More strictness is required in dealing with professional graziers, especially in the neighbourhood of Chapaner block. Not only does that part of the block, which lies near the Cháran settlements, show severe signs of over-grazing, but in the neighbouring forest block where grazing is allowed, the axe is freely used by the graziers."

116. The Collector of Ahmednagar in his forwarding observations suggests "that it might be worthwhile suggesting to Government that all Magistrates should be appointed Forest Officers for the purpose of carrying out the provisions of Section 67. Under present arrangements the whole of the final responsibility for this work is virtually thrown on the Divisional Forest Officer, who, in the present instance, has had to dispose of nearly 3,000 cases, most of them of a trivial nature, during the year.

117. The number of cattle of different kinds impounded in the several divisions of the Northern Circle, under Section 69 of the Forest Act, for trespassing into closed portions of forests, as also for grazing in open forest areas without passes, is given in the following statement, as directed in paragraph 13 of Government Resolution No. 1899, dated 13th March 1891, Revenue Department:—

No.	Division.	Kind of Forest Area.	Cows and Bullocks.	Buffaloes.	Camels.	Horses	Asses	Sheep.	Goats	Total in	
										Closed Area.	Open Area.
1	North Thána	Closed ...	867	170	...	...	...	...	516	1,553	...
		Open ..	250	36	...	...	...	...	...	...	286
2	South Thána	Closed ...	532	69	...	...	...	...	79	680	...
		Open .	...	18	...	...	...	...	...	...	18
3	East Khándesh ...	Closed .	7,610	849	...	48	...	2,303	1,656	12,456	...
		Open .	6,437	922	.	21	...	10,294	2,552	...	20,226
4	West Khándesh ...	Closed ...	12,290	1,498	...	17	14	4,048	1,435	19,342	...
		Open ...	2,332	191	...	19	32	1,368	1,216	..	5,158
5	Násik	Closed ...	8 816	873	...	131	29	16,867	5,925	32,641	...
		Open ...	8,115	478	2	147	...	12,104	4,466	...	25,307
6	Ahmednagar .	Closed	22,074	1,560	...	210	69	12,911	9,884	46,708	...
		Open	19,545	1,272	...	177	107	16,109	11,155	...	48,365
7	Poona	Closed ..	9,135	759	...	124	59	12,127	4,545	26,749	...
		Open ...	4,451	522	...	82	41	6,859	6,964	...	18,919
8	Satára	Closed ..	7,797	1,833	...	98	32	2,025	10,601	22,386	...
		Open ...	2 553	803	...	59	15	1,496	9,108	...	14,034
9	Sholápur	Closed ...	24,803	2,270	...	214	132	8,772	2,958	39,239	...
		Open ..	1,193	135	...	13	...	1,550	219	...	3,110
10	Surat	Closed .	121	64	...	...	...	...	194	379	...
		Open .	23	...	...	...	...	...	...	...	23
11	Panch Maháls ...	Closed ...	117	1	...	...	...	...	4	122	...
		Open ...	260	40	...	...	4	112	1.178	...	1,595
	Total ..	Closed	94,192	9,9' 6	...	942	335	59,053	37,797	2,02,255	...
		Open	45,159	4,418	2	518	199	49,892	36,853	...	1,37,041

118. The numbers of cattle impounded last year, (*a*) for trespassing into closed areas, and (*b*) for grazing without passes in open areas, were 202,372 and 100,221 respectively. A comparison of these figures with those of the year under report, will show that there was a decrease of 117 under the former, and an increase of

36,820 under the latter class of offences against grazing laws. The cause is not far to seek: it is owing to the population keeping cattle which they do not take care of, but send out to forage for their living, and to the constant endeavour of the owners of cattle to evade the payment of fees. It will be seen that in the closed forests, from which cattle are excluded in the interests of forest conservancy, so that natural and artificial reproduction of timber may not be destroyed, but may have a fair chance of living, 202,255 cattle trespassed, having either wandered in while roaming untended in search of food, or having been deliberately driven in, or having been wilfully allowed to trespass; of this number no less than 59,053 were sheep and 37,797 were goats, the property chiefly of wandering and professional graziers; while from open forests in which grazing of cattle of the bovine species might, in almost all cases, be purchased by paying the fee for a permit, 137,041 cattle were driven to the pound; of this number 49,892 were sheep and 36,853 were goats.

119. In the Konkan and Gujarát, the country of heavy rainfall, of a vigorous growth of grass, cattle trespass is not serious; but in the Deccan, where grass is scarce outside of the forest reserves, while large stocks of cattle are kept for the beef and mutton markets, where the climatic conditions are not so favourable to the growth of vegetation, the rainfall being uncertain and scanty, there cattle-trespass is very severe. The Commissariat Department in Ahmednagar have made a representation of the impossibility of keeping cattle, the property of villagers and others, from trespassing into their grass preserves, even with special watchers put over these preserves, the ordinary rate of pound-fees exercising no deterrent influence upon the owners of cattle. The truth is that the rayat prefers to run the risk of his cattle being caught and impounded, rather than to pay a grazing fee beforehand. Ignorance of forest boundaries, or of the differentiation of closed and open forests, has nothing whatever to do with cattle-trespass: every little cow-boy in a forest village knows where the forest boundaries run, the location and extent of the closed forest and of the open or grazing areas; and there is no difficulty in obtaining grazing permits, for the village officers are supplied with blank permit books for issue of permits to any cattle owner, who may apply for a permit, and they are only too anxious to supply permits, as they receive a percentage of the receipts derived from their sale. With more than three quarters of the whole area of the forests in the Thána district, open to grazing, there is no excuse for the villagers to allow their cattle to go into the closed compartments and plantations, upon the efficient protection of which depends the success of the working plans in respect of them, but they have been doing this so persistently that on the recommendation of the Collector, Government have, in their Resolution No. 4881, dated 18th July 1891, in the Revenue Department, raised the scale of pound fees—

For each buffalo from ...	...Re.	0-8-0	to Re.	1-0-0
For each horse, mare, gelding, &c., from	„	0-4-0	to „	0-8-0
For each calf, ass, pig, &c., from ...	„	0-2-0	to „	0-4-0

and this will possibly have a wholesome effect upon cattle-trespass in the future.

120. As a rule the owners of trespassing cattle, the property of villagers, have generally been warned when the animals are seen in the forests for the first time; and often the animals are driven out a second time even; and it is only after repeated and deliberate infraction of the law that animals are impounded, and action is taken against their owners. Government Resolution No. 5763 of 17th July 1885, in the Revenue Department, in paragraph 2 gives the orders on the point.

121. The Collector and District Magistrate of Khándesh has noted that "it is satisfactory to find that the number of cattle impounded has fallen from 45,821 to 24,500, nearly 50 per cent., in the West Khándesh division, and as the forest establishment would appear to have been, if any thing, more on the alert, it may be taken that the people are getting to know the reserves better and are more careful."

122. The Collector and District Magistrate of Ahmednagar has recorded that "the number of cattle impounded for trespass in open and closed reserves has again been undesirably large. In his remarks as to the reasons for this the

Divisional Forest Officer has omitted to notice the lightness of pound fees. To this, however, he has called attention in a separate report, and proposals to raise the fines in respect of cattle trespassing in the forests of the villages that have been most to blame, have already been submitted to Government."

123. The Collector and District Magistrate of Sátára has stated : "I have no valid reasons for thinking that the forest subordinates impound cattle harshly and unnecessarily. I have found the Range Forest Officers reasonable and intelligent men ; when doing jamábandi, I have made it a rule to have the Range Forest Officer of the táluká in question seated by me, and I ask the officers of each village if they have any complaint to make in forest matters, so also I ask the Ranger if he has any complaint against the village, and in this way differences are amicably settled."

3.—CIVIL SUITS.

124. No civil suit was instituted either by or against Government in any of the divisions of the Northern Circle, during the year. The two suits referred to in paragraphs 131 and 132 of last year's report, in the North Thána division, were still under adjudication and remained undecided up to the close of the year.

125. In the Poona division a sum of Rs. 293-1-0 has been recovered from Dipchand Balkisan, out of the amount of Rs. 320-5-5, referred to in paragraph 130 of last year's report.

4.—FOREST FIRES.

126. The following statement exhibits the results of fire conservancy in the several divisions of the Northern Circle, during the year, as compared with those of the year preceding :—

No.	Division.	Forest Area placed under protection against fire.		Acreage burned.		Percentage burned		Expenditure incurred		Remarks.
		1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91	1891-92.	
								Rs	Rs	
1	North Thána .	449,465	436,398	53,559	8,613	11·9	1 9	751	2,364	The figures entered in column "Forest area placed under protection against fire" include the areas provisionally notified under Sections 4 and 28 of the Forest Act which are in charge of the Forest Department, but which are not included in Form No. 49.
2	South Thána .	425,097	377,780	85,300	10,420	20 0	2·7	589	701	
3	East Khándesh	518,109	510,706	19,345	33,766	3·7	6 6	95	176	
4	West Khándesh	1,088,621	1,089,625	606,972	639,812	55·7	58·7	178	220	
5	Násik	763,333	818,490	10,187	11,921	1 3	1·3	102	128	
6	Ahmednagar	541,003	541,524	592	374	0·10	0 06	..	.	
7	Poona .. .	477,090	476,645	2,354	3,805	0 45	0 79	63	11	
8	Sátára	440,867	438,684	4,062	993	0·92	0·22	..	..	
9	Sholápur	177,693	177,716	487	222	0·27	0·12	..	.	
10	Surat .	477,930	477,913	433,616	432,583	90·7	90 5	12	43	
11	Panch Mahále .	212,240	200,109	9,014	10,133	4 2	5·06	1	2	
	Total ..	5,571,508	5,544,089	1,225,268	1,151,542	21·9	20·7	1,786	3,051	

127. In the two forest divisions of Thána greater attention was paid to fire conservancy ; and owing to the energetic co-operation of the Collector, the mámlatdárs, police and other district officers, have all been enrolled in the cause of the suppression of forest fires. The round guards were directed to make an immediate report by means of a post-card to the Collector, direct, on the occurrence of fire within the forests of their rounds, so that the revenue and police officers might be at once warned to assist inquiry and make investigation into the origin of a fire, with a view to the detection and punishment of the offender. In the case of fires caused wilfully the main object is shikár, fire being used to remove the undergrowth and leaves, and thus facilitate the pursuit and slaughter of game. The preparation of ash manure in fields, adjoining forest boundaries, has led to the burning of much forest lands in different directions. The damage done by fire in a closed coupe is incalculable, and 15 of the South Thána division fires burnt "closed forest," traversing 755 acres out of a total of 11,112 acres : in one case the fire was caused by smoking rats out of holes, and two of the offenders were caught and punished with rigorous imprisonment for 20 days.

128. In the East Khándesh division fire conservancy has received specially careful attention, and had it not been for a fire, which occurred in the Sátpuda forests in the Yával range, about a fortnight before the close of the dry season,

through the carelessness of privilege-holders, and which raged for nine days, owing to a strong gale of wind blowing almost all the time and to the impossibility of extinguishing it—no fire trace will arrest a roaring fire in the Sátpudas in a gale of wind, burning vegetation such as the pith of reeds has been known, to be carried the better part of a mile in the air and to ignite the grass where it has eventually fallen,—whereby about 20,000 acres were burnt, the result of fire protection during the year in this division would have shown a marked improvement upon the preceding year. It is pleasing to be able to record that the forest villagers in this division turn out readily and cheerfully to fight a forest fire: 150 men were working for over a week against the Yával-Sátpuda forest fire.

129. The Collector of Khandesh notes: "It is to be regretted that the one great fire towards the close of the year in Yával should have raised the area burnt so high, for excluding that there was a very fair decrease in the total number of fires as compared with the preceding year."

130. In the West Khándesh division, notwithstanding all the preventive measures taken, forest fires have again been general and their range has been greater than ever. The chief cause of fire is the carelessness or indifference of villagers, who go into the forests to cut and take in the exercise of their conceded privileges; and the Collector, in forwarding the report, records that "privilege-holders are no doubt to blame for most of the fires in the Sátpudas."

131. One hundred and twenty-five forest fires were reported in the Násik division, of which 32 were in the Dindori range, 31 in Igatpuri, 15 in each of the Báglán and Násik ranges, 13 in Kalwan, 5 in Málegaon, 4 in Peint and the same number in the Nándgaon range, 2 in the Chandvad and Sinnar ranges, and one in the Yeola and Niphád ranges respectively: and in 50 cases the person by whose action the forest was fired was detected and punished. Some of the fires spread from the fire traces while the latter were being burnt.

132. Only 29 forest fires were recorded in the Ahmednagar division, and they traversed comparatively small areas, which aggregate 374 acres in all, or a little more than half a square mile: no fire traces are burnt in this district, and no expenditure is incurred upon fire conservancy, because forest fires are practically unknown.

133. No forest fires occurred in the Indápur, Sirur, Bhimthadi and Bárámati ranges of the Poona division, but 3,804 acres were burnt in the other seven ranges, the largest proportion being in the Junnar range, where 1,284 acres were fired. The Reserved Forests, the grass of which is made available to the Commissariat Department, suffered greatly from fire, 733 acres having been burnt; this is attributed to the contractor's servants purposely firing the forest in order to destroy evidence of having defrauded their masters by removing grass or permitting it to be grazed down.

134. The forests of the Sátára district are practically free from fires. Nine hundred and ninety-two acres only were burnt during the year by 36 different fires; in twenty-one of these cases the incendiary was discovered; ten of these cases were compounded under Section 67 of the Forest Act, as there was no evidence of intention or of criminal negligence; in six cases children caused the fires, and consequently nothing was done to them. Forest guards burnt 344 miles of fire traces and in three places the fire got beyond their control, and burnt small areas inside the forests which were being fire-traced: in five ranges there were no fires, in two other ranges less than one acre was burnt, and the largest extent of fires was in the Pátan range with 503 acres burnt.

135. In seven forest reserves of the Sholápur division fires appeared during the year, burning 222 acres, the total acreage of the forest division being 177,623; four ranges were free from fire; 5 acres only were burnt in Mádha, 84 in Karmála and 133 in Bársi.

136. The Surat division contains forests which are very much subjected to burning, for grass and under-growth are luxuriant under a heavy rainfall, and the forest tribes are wild, and resort to firing the forest in order to destroy cover for dangerous wild animals, to assist in the killing of game and vermin, and to facilitate the collection of mhowra flowers naturally shed by the trees in the

forests. In the Dángs a selected area of about 2,000 acres round a prominent land-mark, Bilia Dongar, where young teak of excellent growth is very plentiful, was again protected against fire successfully through the assistance and co-operation of the pátil and villagers of Zaria, Boripada and Gira. The pátils were rewarded with gifts of turbans, which were presented to them at the Darbár of the Dáng Rájas, and money payments were made to villagers for their services. In the Mandvi range great improvement is apparent in fire conservancy, as traces were burnt round all the reserves by the forest guards, and the forest villagers co-operated cheerfully in extinguishing fires, and in guarding against their visitation; except for one fire, which burnt 14 acres, the forests of the Bulsár, Párdi, Chikhli and Valod tálukas enjoyed complete immunity from fire.

137. Forest fires were too prevalent in the Panch Maháls division during the year as the following statement shows :—

Range.	Reserves fired.	Area of these Reserves.	Acreage burnt.
Godhra	24	23,680	5,498
Kálol	6	7,657	1,435
Hálol	5	8,397	1,895
Dohad	6	10,801	1,150
Jhálod	3	935	154
			10,132

10,132 acres in all were burnt, which is a slightly larger proportion than of the preceding year; all the reserves were fire-traced for protection.

5.—GRAZING AND FODDER GRASS.

138. The grass and grazing receipts of the Northern Circle have continued to increase during the year of the report as will be seen :—

Year.	Amount.	Year.	Amount.
	Rs.		Rs.
1878-79... ...	42,629	1885-86 ...	2,32,650
1879-80... ...	64,613	1886-87 ...	2,37,126
1880-81... ...	1,00,443	1887-88 ...	2,48,855
1881-82... ...	1,41,765	1888-89 ...	3,27,165
1882-83... ...	1,64,444	1889-90 ...	3,42,037
1883-84... ...	1,97,963	1890-91 ...	3,61,983
1884-85... ...	2,25,853	1891-92 ...	4,35,923

139. The following statement shows the revenue of the year of the different divisions under the several heads :—

No.	Division.	Valuable Kurans of Fodder Grass to be cut and removed.		Open to Grazing.					Auction Grazing.		Grass given to Commissariat Department.		Area closed to Grazing	Miscellaneous Grazing Revenue.	Total Grazing Revenue.
				Area.	Fee.		Free.								
		Area.	Revenue.		Cattle.	Revenue.	Cattle.	Value.	Area.	Revenue.	Area.	Money value.			
		Acres.	Rs.	Acres.		Rs.		Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.
1	North Thána ...	7,904	12,165	321,985	2,411	1,018	127,827	23,968	...	...	...	...	33,616	572	13,755
2	South Thána ...	1,089	200	258,237	9,476	4,430	122,327	41,000	...	...	...	...	28,418	308	4,938
3	East Khándesh ...	20,324	19,159	717,609	196,571	59,736	7,221	2,170	...	...	...	...	38,167	6,188	85,033
4	West Khándesh ...	20,828	7,079	788,088	432,385	91,450	1,310	300	...	...	...	...	223,472	3,334	1,01,863
5	Násik	33,645	16,588	574,035	201,813	49,206	91,192	24,841	...	...	..	...	209,879	1,802	67,596
6	Ahmednagar ...	6,307	764	341,782	132,473	29,069	13,337	2,371	4,532	3,022	5,393	8,629	175,649	6,435	39,290
7	Poona	48,676	31,286	231,668	69,773	12,401	72,221	18,806	41,841	2,131	19,496	34,500	122,834	1,555	47,373
8	Sátára	46,648	27,709	255,248	112,198	14,314	137,073	33,915	...	...	...	...	136,776	2,760	44,783
9	Sholápur	29,018	12,021	48,401	30,996	8,825	10,958	2,866	...	...	...	...	40,443	3,344	23,690
10	Surat ...	...	...	24,011	2,689	739	1,000	250	...	..	...	...	7,079	257	996
11	Panch Mahals ...	16,983	1,355	175,700	17,597	5,231	47,000	13,200	494	19	...	...	1,642	1	6,606
	Total ...	231,462	1,28,326	3,737,664	1,202,372	2,75,919	631,466	1,63,687	46,867	5,172	24,889	43,129	1,012,970	26,500	4,35,923

140. The comparison between the receipts of 1891-92 and of the preceding year is as under :—

No.	Division.	1890-91.	1891-92.
		Rs.	Rs.
1	North Thána... ...	7,232	13,755
2	South Thána	7,320	4,938
3	East Khándesh ...	53,527	85,033
4	West Khándesh ...	81,275	1,01,863
5	Násik	56,639	67,596
6	Ahmednagar	35,688	39,290
7	Poona	55,116	47,373
8	Sátára	39,144	44,783
9	Sholápur	18,756	23,690
10	Surat	976	996
11	Panch Mahále ...	6,310	6,606
	Total ...	3,61,983	4,35,923

141. In the North Thána division the revenue from the sale of grass in the Reserved Forests and portions of Reserved Forests, the grass of which is sold for cutting, was much better than of the previous year. A much smaller area was however sold as the list of these properties has been carefully revised by the Collector and Divisional Forest Officer, when the less valuable ones were given to grazing instead : grass in closed forests was sold when purchasers were forthcoming, and cutting of grass could be allowed without risk of injuring young forest growth : where the grass of coupes closed for reproduction of timber could not be sold, it was given to villagers for free cutting under certain regulations ; the tall and luxuriant grass in these coupes is a powerful source of danger to the plant-life in case of fires. The special grass areas sold covered 6,517 acres, and the receipts came to Rs. 11,197½ ; while by sale of grass in closed coupes Rs. 1,573 were obtained. The new grazing rules which had been introduced experimentally into the Bassein range during 1890-91 were continued during the year of the report, but were not applied to any other range. The amount of grazing fees collected in the Bassein range was only Rs. 18, and 12,862 head of cattle were given free grazing in the forests. Sixteen buffaloes and 1,026 cows were brought from outside into the district for grazing in its forests, and paid fees amounting to Rs. 727½. For the size of this division, the total amount of grazing fees collected during the year, Rs. 1,018-12-0, is very small indeed.

142. In the South Thána division the new grazing rules were introduced into two tálukas, Kalyán and Bhiwndi, for trial, with indifferent results. The following table shows the differentiation of the receipts derived from grass and grazing during the year :—

Number.	Range.	Number of Fee Cattle grazed.	Amount of Fees.	Sales of Grass.	Total.
			Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Sháhápur	837	519 15 0	*Nil.*	519 15 0
2	Khardi	3,146	1,879 0 0	*Nil.*	1,879 0 0
3	Mokháda	1,516	338 7 0	5 0 0	343 7 0
4	Murbád	466	291 11 0	44 9 9	336 4 9
6	Kalyán	355	209 15 0	383 8 0	593 7 0
6	Bhiwndi	2,512	678 14 0	*Nil.*	678 14 0
7	Karjat	374	310 2 0	75 10 0	385 12 0
8	Khálápur	290	201 15 0	*Nil.*	201 15 0
	Total ...	9,476	4,429 15 0	508 11 9	4,938 10 9

143. Swine and goats are excluded altogether from the South Thána forests. The closed compartments into which no cattle are allowed are those which have come under the axe for the exploitation of timber, and are now shut up for the regeneration of the same; and in addition thereto of 1,089 acres in the villages of Shil, Kawse, Gholeghar and Dysar in the Kalyán range, which are closed for five years for the improvement of their forest growth, altogether 23,413 acres are closed; while the maximum permissible is one-fourth of the total forest area of the division, or about 94,324 acres. In the isáphat forest of Khatioli ten compartments have been worked out of the forty, and are now closed to cattle.

144. The receipts of the East Khándesh division from grass and grazing have increased all round as will be seen :—

	1890-91.	1891-92.	Increase.
	Rs.	Rs.	Rs.
Fee grazing	34,142	59,736	25,594
Grass sales	19,379	25,297	5,918

145. The new grazing rules have been applied generally, and the sales of grass have been more productive owing to keen competition; 38,167 acres of forest are closed to cattle in this division, and of this portion 17,843 acres are only temporarily closed. But there has been a large increase in the number of cattle impounded in this division although the grazing revenue has increased largely, the reason being that cattle-owners refuse to buy grazing permits, saying that they do not want to graze their cattle in the forests, but they subsequently either wilfully trespass their cattle or permit the cattle to trespass. The villagers in the Bhadgaon petha have been conspicuous in such misconduct.

146. The new grazing rules were in force throughout the West Khándesh division, and the total number of cattle grazed on payment of fees was 432,385; there has been a decrease of 47,000 in the number of sheep, of 20,000 in calves, and 18,000 in goats, which is not regretable; on the other hand, the number of large cattle has increased by 15,000 and horses by 4,000. Only 1,310 head of cattle were free grazed within forest during the year, owing to the privilege of free grazing having been stopped by Government Resolution No. 7477 of the 21st October 1890, for one year, on account of the frequent and extensive forest fires. Forest villagers take grass from the open forest free of charge, and in the ranges north of the Tápti river, this privilege is enjoyed by all Bhils and other wild tribes resident in the tálukas; out of a total forest area of 1,021,360 acres, 788,088 acres were open to grazing, and 223,472 acres were closed, while the grass on 20,827 acres was sold for cutting. The Collector has recorded the following remarks :—

"It is satisfactory to find that the number of cattle impounded has fallen from 45,821 to 24,500, nearly 50 per cent., and as the forest establishment would appear to have been if anything more on the alert, it may be taken that the people are getting to know the reserves better and are more careful. The number of cattle grazed on payment has decreased by some 64,000 head, mainly sheep, and this is somewhat extraordinary, as the free grazing was almost nil. It would have been interesting to know why the decrease in sheep took place; have the Thilaris ceased coming into the districts? The Collector has not received any complaints from them on the score of grazing, and is at a loss to understand the reason for the decrease."

147. The grazing revenue of the Násik division has likewise gone up; by sale of grass from cutting Rs. 4,500 and by grazing fees Rs. 6,500 have been realised in excess of the receipts of the preceding year. The new grazing rules are enforced throughout the district, with the exception of the Peint táluka. By order of the Collector the open forests were closed against cattle from the 1st June to the 15th August, and against sheep up to the 15th September, with the exception of a block of 23,000 acres in the Nándgaon range, which was opened to sheep from the 1st August. It is reported that the forest villagers were delighted at the order to exclude sheep until the middle of September, as these animals had been in the habit of grazing the new grass down as fast as it grew in the open forests into which they are admitted and which in previous years had been available to them from the 1st June, and the large cattle in these villages had suffered in consequence. The villagers co-operated most willingly in keeping sheep out of the forest during the close time.

148. In the Ahmednagar division the grazing rules were in force, and the revenue exceeds that of the previous year by Rs. 3,589 ; 132,473 head of cattle, of which 40,803 were sheep, were grazed within the forests, an area of 57,301 acres being assigned specially for the latter animals; four forest reserves, representing 727 acres 10 gunthas, the grass of which is estimated to be worth Rs. 1,163-10-2, are made available to the Remount Department for grazing; and nine forest reserves, with an area of 4,666 acres, and grass worth Rs. 7,466 annually, are placed at the disposal of the Commissariat Department for purposes of grass supply.

149. The deferred rainfall in the Poona division retarded the growth of grass and diminished the crop, so that the prices obtained for the valuable kurans, covering 48,676 acres, for the hay supply of the district, were less than of the preceding year, and amounted to Rs. 31,286. The receipts, Rs. 12,401, from fees were also less, owing probably to a greater number of cattle passed as "agricultural;" 72,221 of such and of milch cattle enjoyed free grazing in the forests. The Commissariat Department requisitioned for and secured a larger forest area than of last year to be made available to them for the grass-supply of the Government horses and cattle in Poona and Kirkee, and for the slaughter animals of the Aligaum farm, so that 19,496 acres were assigned to them for grass-supply free of charge; the estimated value of this concession being Rs. 34,500. In the villages along the western ghâts grazing is sold by auction, and is not worked on the permit system; 41,841 acres were treated in this way, and produced a revenue of Rs. 2,131-9-0. The forest areas opened to fee as well as to free grazing represent 231,668 acres, while the closed area for purposes of forestry amounted to 122,834 acres, but owing to the absence of pasturage outside the forests, and to the scarcity of grass in the country, grazing was made available to the villagers by order of the Collector in the Rahu Reserved Forest of the Bhimthadi range, and in the closed forests of 20 villages in the Indápur range.

150. The new grazing rules were worked in the Sátára division; the grass on 39,791 acres was sold for Rs. 22,472-12-9 for grazing of cattle; on 6,857 acres the grass was sold for cutting, realising Rs. 5,236-9-1, while 255,248 acres were open to fee and free grazing, the fees bringing in Rs. 14,313-14-0. The portions closed for forestry aggregated 136,777 acres, and by sale of grass for cutting in parts of it Rs. 2,760 were obtained. The free grazing areas within the forest reservations before the grazing rules were applied amounted to 114,957 acres, but under present arrangements the "free cattle" numbering 137,073 had the run of 255,248 acres. Although the year was a bad one for grass and pasturage the revenue derived from grass and grazing has increased, which speaks favourably of the improvement of the grass in quality as well as in yield: but it is somewhat remarkable that despite the complaints of there being no good grazing anywhere outside of the forest boundaries, grazing permits were not taken by their owners for no less than 414,455 head of cattle in forest villages alone; this is very significant when it is remembered that in every village grazing permit books are in the hands of the village officers who are ready and eager to issue grazing permits, if only because a percentage of the collected fees is paid to them, and when it is remembered also that very large numbers of cattle trespass into the closed forests and into the open forests without permits, of which a fraction only is driven to the cattle pounds.

151. The new grazing rules were brought into force in the Sholápur division in the year of this report for the first time, and the differentiation of grazing was as under:—

(1) Fee grazing on permits in open forests,

(2) Free grazing on permits in open forests to agricultural and milch cattle, in villages which have contributed gáirán to forests:

(3) Grazing on special areas; valuable kuran sold by auction.

The season for grazing extends from the 16th August to the 31st March; and the close season against grazing, during which period cattle are excluded from the open forests, extends from the 1st April to the 15th August. It is reported

that the new grazing rules have been introduced and worked in the Sholápur Division with absolutely no complaints received against them from the people of the district. There are 344 villages containing forest reserves in this division, and of these 61 only have contributed gáirán, measuring 11,720 acres to forest; 48,401 acres of forest were however open, during the year, to the grazing of fee and also of free cattle. The scale of fees charged for local cattle was—

Buffaloes	.. 0 8 0	for the grazing season of 7½ months.
Cow, ox, horse, mule or donkey ...	... 0 4 0	
Sucking animals	... free	
Agricultural and milch cattle ...	... free	

152. The cattle of professional graziers were required to pay double the above rates; outside cattle, *i.e.*, cattle brought from outside the district, treble the above rates; sheep and goats are not allowed into any portion of the Sholápur forests; 10,958 animals consisting of 3,097 cows, 6,394 bullocks, 481 calves and 986 buffaloes were given free grazing permits; while 30,936 animals consisting of 1,894 buffaloes, 28,408 cows and bullocks, with 618 calves and 66 horses took out grazing permits on payment of Rs. 8,325-8-0 in fees; the valuable kurans representing 29,018 acres were sold by auction for grass cutting to be followed by grazing; five reserves only of these being closed to cattle. The total area of absolute closure in the district for purposes of forestry amounted to 40,443 acres, and the total grass and grazing revenues came to Rs. 23,690: as the rainfall was both short and untimely, and in consequence the *rabi* crops failed in a portion of the district, causing a scarcity of fodder outside the forest reserves, the cutting and closed forests were, under the order of the Commissioner, C. D, thrown open free to local cattle in all the ranges except Bársi after the rains; and later on as the season advanced in response to requisitions made by the Collector, some of the plantation numbers were also opened to cattle free of charge; and no doubt considerable benefit resulted to hungering cattle, and indirectly to the agriculture of the district, by this judicious concession to drought and scarcity of fodder grass.

153. The grazing rules worked smoothly in the Surat Division also; the Collector has remarked that so far as the resident population is concerned he has heard no reasonable complaints, and the rules seem to have worked well. The revenue from grass and grazing increased from Rs. 600 to Rs. 996; more animals entered the forests for grazing, *viz.*, 2,689 against 1,482 of the previous year, and an exceptionally brisk demand sprung up for cutting and removing grass from the closed forests. The close season extended up to the 31st August.

154. In the Panch Mahále Division the old grazing arrangements were continued, and the new rules were not introduced during the year. All the forests of the division have been divided into grazing blocks with one-third of the total forest area closed for purposes of forestry against cattle, 17,597 head of cattle were provided with grazing in the open forests during the year.

155. The following statement will show the number of cattle of different kinds in the several Collectorates of the Northern Circle, according to latest returns:—

No.	Collectorate.	Cows and bullocks.	Buffaloes	Horses.	Asses and mules	Sheep.	Goats.	Camels.	Elephants.	Total.	Remarks.
1	Thána	307,413	75,392	1,481	41	3,203	39,878	...	...	427,408	
2	Khándesh ...	694,216	169,122	23,680	8,086	34,578	151,290	...	...	1,080,917	
3	Násik	473,332	68,191	13,955	...	108,592	137,793	...	...	798,863	
4	Ahmednagar . .	649,717	38,885	21,758	6,105	307,796	222,854	...	...	1,247,115	
5	Poona . .	455,986	68,516	11,624	4,662	224,654	113,172	...	...	878,614	
6	Sátára ...	490,900	160,333	14,334	2,714	379,387	97,085	4	..	1,134,757	
7	Sholápur .. .	437,161	70,688	12,386	3,651	263,318	113,688	9	...	900,901	
8	Surat . .	256,431	80,378	1,587	...	29,121	69,579	...	...	441,096	
9	Panch Mahále	250,176	36,792	2,995	2,459	6,280	30,995	44	...	329,741	
10	Ahmedabad	294,055	145,083	6,790	...	36,204	56,185	.	...	528,357	
11	Kaira	223,146	212,630	2,709	5,861	7,783	44,987	191	1	497,208	
12	Broach . .	90,793	51,661	2,624	1,525	14,020	24,904	64	...	185,591	
	Total ...	4,623,316	1,168,671	115,863	35,104	1,409,981	1,102,360	312	1	8,450,558	
	Total for 1890-91 ...	4,651,456	1,173,940	113,418	28,846	895,270	621,378	356	2	8,274,342	
						789	681				

156. It will be seen that there is an increase on the whole in the number of cattle, and especially in that of the sheep and goats in almost all the Collectorates of the Northern Circle.

157. Considering the short time they have been introduced, the grazing rules have worked very fairly, for they do not exact heavy fees; and with time and perseverance they will work smoothly as the people fall into their ways, and the village officers understand that the issue of grazing permits to the cattle which enter the forests to graze without having taken out permits previously, is preferable treatment of illicit grazing in *open forest* than the impounding of such cattle, unless they are goats and sheeps.

6.—FENCING.

158. The fencing of exploited coupes with wire was continued in the two ranges of Dáhánu and Bassein of the North Thána Division during the year, 12,212 running feet of wire fencing having been erected, and a large quantity of wire was obtained for employment during the coming season; coupes require to be fenced on the lower boundaries in order that cattle may be kept out, but the work is expensive.

159. In the South Thána Division a wire fence 2,565 feet in length was erected round the Bendikon coupes of the Khardi range which were felled in 1888, 1890; and an additional and barbed wire was put round the Sháhápur coupes.

160. In the Niphád range of the Násik Division 260 feet of the Naitala forest reserve were fenced with Sabri (Euphorbia tirucalli) at a cost of Rs. 13-3-6.

161. Wire fencing was put up round the Arangaon, Valunj and Limpangaon Reserved Forests in the Ahmednagar division, 829 acres being enclosed by 48,080 running feet of fencing; three lines of wire were used, the first being one foot above the ground, the second two feet, and the third 3½ feet, the central wire on some portions being barbed wire. Teak posts were used as stobs or uprights, and were sunk 2½ feet in the ground, and were placed at distances of 10 feet. The cost of this fencing came to Rs. 6,367-10-6, or about Rs. 4-6-7 per 100 running feet; 15,093 lbs. of old telegraph wire ranging 600 lbs. to the mile have been received from the Telegraph Departments for further fencing purposes. In addition to the above, all the bábul compartments, which had been exploited before the rains, were enclosed by thorn hedges, and 100 bulbs of aloe (agave americana) were planted out by each forest guard along the boundaries of his forests, free of charge.

162. In the Poona Division wire fencing was erected along forest boundaries, as under :—

(1) 8,640 running feet at Dongargaon round a bábul reserve on the bank of the Indráyani river in the Haveli range;

(2) two miles at Lonikálbhor in the Haveli range completing the 12 miles of wire fencing of the hill-side Reserved Forest overhanging the Southern Marátha Railway line;

(3) 24,638 feet round bábul compartments at Kedgaon, Párgaon and Handalwádi in the Bhimthadi range.

8,648 lbs. of old wire were purchased from the Telegraph Department, and 2,500 teak and junglewood posts were obtained from the forests of the Haveli range and also from the South Thána division.

In addition to the above 8,740 feet of aloe and thorn fence were put up in the Indápur range, 29,294 feet of thorn fencing in the Bhimthadi range, and a small quantity in the Haveli range round exploited coupes in the bábul forests.

163. No wire fencing has yet been attempted in the Sátára division, but during the year 11,100 feet of aloe fencing were planted round small plantations, and along the edges of coupes.

164. Aloe fencing has been undertaken to the extent of 32,984 feet in the Sholápur, Mádha, Pandharpur and Sángola ranges in the Sholápur division, at a cost of Rs. 208-10-6; however useful this kind of fencing may be to define boundaries, and for the protection of the latter, it is useless against trespassing cattle, which make gaps in it where they do not find them ready made. The only reserve at present protected by a wire fence is at Karmála, where about 424 acres have been enclosed; the results from the protection thus secured are very obvious to even the most casual observer; a quantity of strand and barbed wire has been obtained for enclosing other reserves, but there is a difficulty in getting teak posts.

7.—NATURAL REPRODUCTION.

165. There is nothing new to add under this heading to the reports of former years. Natural reproduction is very vigorous everywhere in the Thána district whether from seed or from stool; an enormous number of seedlings, however, are killed annually by fires or by cattle, whilst many die in the hot weather; given protection from fire and grazing and mischief, the forests everywhere may be trusted not only to maintain themselves, but to increase in value. The regrowth in the closed compartments which were recently coupes under exploitation is generally vigorous and very luxuriant, so that the regeneration of the forests and their enhanced condition at the end of the rotation now being pursued may be expected with confidence. The new growth in the coupes is principally coppice, but a fair number of seedlings come up: the latter, however, suffer more than the former when fire overruns the compartment. The seeding in the Thána forests was very bad during the year, especially in the case of teak trees; the heads of flowers were numerous on the teak trees, but in most cases became barren, and often where drupes had formed, it was found that the seeds contained had not ripened. A great deal of damage was done to the teak by caterpillars during the rains and up to the second week of November, when they suddenly disappeared; these caterpillars were of small size, greyish black, with a brown head, and were in such myriads that the leaves of all the teak trees in the district were reduced to skeletons of net-work, the caterpillars eating all the parenchyma of the leaves, and leaving only the fibres intact. The effect of this visitation on the trees, especially on young seedlings and coppice shoots, the tender leaves of which were especially toothsome to the caterpillars, must have been disastrous upon the increment of wood, besides weakening the trees; it is a noticeable fact that the trees broke out into new leaf much earlier in 1892 than ordinarily. A partial seedling of the manvel bamboo took place during the year, chiefly in the Máhim range, and seeds have been collected for broad-casting in forests, where the bamboo is not. On the whole, there is no reason to complain of the condition and progress of natural reproduction in the forests of the Thána Collectorate; and if protection continues to be good, even as good as it is now with such an excellent Forest-Collector as Mr. Sinclair in charge of the district, the commercial value of the forests will augment marvellously before the current revolution of the working plans has run its course.

166. In the Khándesh district natural re-production by seed and shoot is retarded in a great measure by the want of complete fire protection and by heavy grazing. In places where these hostile agencies are disappearing reproduction by seed especially is conspicuous, and it is as certain as day succeeds night that where fires are kept out and grazing is regulated under proper control, natural improvement of the forests asserts itself. In the Sátpudás, in the Sahyádri forests, in the Sátmálas, in the Jámner teak belt, in the Central forests south of the Tápti which were considered to be nearly beyond redemption a few years back, where these conditions of protection have been secured, reproduction by seed is, as a rule, good, and the forests are perceptibly better, blanks having filled and decreased in spread, and fine upright saplings with clean cylindrical stems showing themselves prominently in healthy race for the overhead light. In the bábul forests the exploited coupes, when closed, reproduce themselves quickly if protection is efficient. Some old coupes in the Transpurna forest were traversed by fire in the hot weather of 1891, for the first time after 10 years, and a lamentable destruction of seedlings and saplings is the result: it was intended to open these compartments to cattle after the rains of 1892, but now

they will have to remain closed for a further term of years. In the Anjan (Hardwickia binata) forests self-sown seedlings are very scarce at the best of times owing to the Anjan seeding so irregularly and at long intervals; for the last three years not a tree has seeded. Shoots from stools are generally of good growth where, and so long as, goats are excluded; but the Thilaris who bring enormous flocks of sheep have many goats, and where these animals go into a forest there they work destruction of ligneous vegetation, more particularly of the young seedlings and shoots which are not defensible by being beyond the reach of their teeth. Goats attack the bark of the older and taller trees and thus injure them vitally.

167. In the Deccan Collectorates of Násik, Ahmednagar, Poona, Sátára and Sholápur, the rainfall has not been generally favourable to natural reproduction in the forest areas, but notwithstanding this there has been considerable advancement in the development of old trees, and in progressive afforestation of the tracts under reboisement where cattle are strictly excluded. In open forests the herds of cattle trampling the soil stamp out plant life, defeating all efforts of nature in regeneration, while sheep and goats destroy all ligneous vegetation not beyond their reach upon all the lands to which they are allowed access.

168. The rainfall in the Surat division was plentiful and favourable; about 120 inches fell in the Dángs. The high forests here are worked chiefly for large timber, and trees have of necessity to be felled when they have attained a considerable age, when their power of reproduction by coppice shoots has almost disappeared, and in consequence few and feeble shoots are to be seen among the few which have sprung up from the stools where fellings have been made in recent years; this is particularly noticeable in going through the forests round Khubita and Sodmal. But regeneration by self-sown seeds, though retarded by fires, is by no means unsatisfactory, and the greater portion of the Wasurna Dángs and the valleys of Pimpri Dáng, and in many other localities from whence large timber had been extracted during the past decade, are now densely stocked with teak saplings and poles of a most promising character: when shifting cultivation is confined within fixed bounds and demarcated forest areas are closed against its entry, and at the same time fires are kept out, the forests of the Dángs will progress with great strides in the path of improvement and of enhanced wealth. In the Gandeva coupe felled during 1890-91 teak has coppiced very vigorously and densely, new shoots having topped 8 feet in one season. In the Mándvi range also natural reproduction has been good, and in riding through the forests it is very pleasing to notice old sites of cultivation now forest covered with seedling growth of valuable timber, with large trees fringing their borders, teak predominating.

169. There is nothing special to chronicle in respect of the Panch Maháls division, but it may be stated generally that where fires and ovine cattle are kept out, there the forests are improving steadily. A very great advancement was noticed by the Conservator to have taken place, since the time of his former visit, in the forests of the Kalol range on the eastern frontier; and in the forests upon the slopes of Pavagad in the Hálol range, which are now well stocked with saplings.

170. There is scarcely any land in Western India which cannot be made to grow fodder bushes, fuel scrub and good grass with care and perseverance, so long as men and cattle are excluded while the ligneous vegetation is in its infant stage, and the roots of grasses and other plants are working actively in the formation of soil; when there is a fair growth on the ground bovine cattle can be admitted for a short period yearly when the demand for grazing is the chief consideration, but the strict exclusion of goats and sheep for a long series of years is of absolute necessity. In cases where the forest lands brought under plantation originally contained good soil, there the growth of timber is not a long process; for example, the bábul forests in the Sholápur division which have been created while the writer of this report has been Conservator of Forests of the Circle containing the Sholápur division, are now being divided into blocks, with 40 compartments each, for working, and coupes will be sold for exploitation next season, which will produce not less than Rs. 10,000 in receipts. Hill slopes in the Deccan come on more slowly, but hundreds of square miles in the

Khándesh, Násik, Ahmednagar, Poona, Sátára and Sholápur divisions which have been treated since 1879 for reboisement, are now showing a promising growth of saplings; the Bársi hills in the Sholápur division being a conspicuous example. But the undulating uplands or máls in the Deccan are the toughest to deal with, and though fodder bushes and scrub fuel bushes will appear upon them, it will occupy the better part of 50 years to cover them with timber.

8.—ARTIFICIAL REPRODUCTION.

171. In the Thána Collectorate operations are confined to—

(a) old plantations and kurans.

(b) the exploited coupes (closed forests).

(c) acquired occupied lands within the boundaries of forest reserves such for instance upon the catchment of the Tánsa lake.

Forest guards planted up patches within their own beats as part of their regular work. Seeds were collected by guards and by hired labour.

172. In the North Thána division 7,204 acres were under cultural treatment, transplants from surrounding forests being moved into the exploited coupes of the season. Sandalwood was planted in every range on a small scale in specially selected and prepared sites. The total cost of the works amounted to Rs. 855. In the South Thána division 225 acres outside the coupes recently closed were planted up, and 122 acres of plantation were made by forest guards in their respective beats: some of these were doing very well in the hot weather, especially in the Koshimshet, Sakurlé, Chargaon, Sháhápur and Umgaon forests.

173. In the East Khándesh division 56 khandis 2 maunds and 9 seers of seeds were sown over 3,020 acres of Reserved Forest, of which 573 acres were treated by dibbling, 599 acres of bábul reserves by full ploughing, 1,823 acres were pitted over and sown, and 25 acres were broad-casted. Mr. Desái reports the results in the South Tápti ranges to be unsuccessful, but in the North Tápti forests to be promising.

174. In the West Khándesh division 72,200 acres were broad-casted over with seeds and upon 297 acres dibbling has had recourse to, while 5 acres in a bábul reserve were ploughed and sown. As the rains were heavier than usual, the seedlings made a fair start, but later on a large number of them withered away. Seedlings which had been grown in pots in the Dhulia and Dahivel nurseries were planted out in the forest areas with fair success.

175. The rains were scanty and late in coming to the Násik district, and the plantations did not do so well in consequence as could be desired; many seedlings died during the hot weather. Each forest guard planted up his five acres in the forests of his beat, sandalwood plantations were started on a small scale in each range, seed having been obtained from Coorg, but a large proportion did not germinate, and many plants did not survive the hot weather.

176. In 1890 a plantation was started at Páthardi at the foot of the Lena hill in the Násik range, about 6 miles from the city of Násik: its site is of an old tank, the dam of which must have been swept away many years ago, and it is full of deep alluvial soil. This plantation has been watered from the old Budhist caves carved in the low scarp that runs across the north face of Pándao-Lena hill, about half way up or over 600 feet above the plantation. All the caves contain cisterns cut out in the rock to hold water; these cisterns have small mouths and spread inside into a large quadrangular hollow, and are full of water. At the outset a tin half-round pipe about 700 feet in length was fixed from the caves to the plantation, and a man used to go up to the caves and pour water into the tube on the top, and another man caught it at the bottom in buckets: but last year it was suggested that the use of a syphon to bring the water down would be of advantage, and Mr. Betham has now fitted one which works admirably; 50 feet of iron piping 1 inch in diamater fitted at each end with a brass cock was obtained from Bombay at a cost of Rs. 13, and a large iron tank purchased for Rs. 64 has been placed in the plantation, and 400 feet of additional tin piping costing 9 annas per running foot had to be fixed to the old gutter, and now a forest guard goes up to the cave and turns a cock which allows the water to run down the pipe and fill the iron tank 4′ × 4′ in the plantation, which is

flourishing with a very fine growth of bábul, bamboo, ain, moho, tamarind, teak, siras and many other seedlings.

177. The Ahmednagar division also had cause to complain of the rainfall which was inimical to its plantations; 92 acres and 14 gunthas representing the exploited coupes in the bábul reserves upon the banks of the large rivers of the district were thoroughly ploughed up and sown with Sind bábul seeds, with very satisfactory results; 2,861 acres of hill slopes in the western ranges of Akola and Sangamner, including all the exploited coupes of the season, were dibbled over with teak and other seeds, at distances of 10 feet apart; the results, however, are not yet fully seen; over 245 acres seeds of tarwad (Cassia auriculata) were dibbled at distances of 10 feet apart in the Reserved Forests, which are open to sheep grazing, as sheep will not touch this plant, the bark of which provides excellent material for tanning purposes. Seeds of the nimb (Azadirachta indica) were sown inside of and under the protection of thorny bushes in shallow pits over 2,818 acres of forest in all the ranges; this tree is very hardy and grows well out of the centre of euphorbia and other armed bushes, enjoying in youth the protection thus afforded; 2,168 acres of bábul reserves were sown plentifully broad-cast with bábul seeds, but the want of rain delayed their germination; 5,500 pits were dug by hired labour on wages in the midst of forests along the gháts in the Akola range, and were sown with seeds of the hirda (Terminalia chebula): while 145,275 pits, distributed over all the forest beats in the division, were dug and sown up with seeds by forest guards, who collected 133 khandis of seeds, and who broad-casted 12,695 acres of forests in all the ranges with the quantity of seeds remaining after the pits prepared by them had been sown up. The regular watered plantation at Dongargan is doing very well; it had been fully stocked in previous years, but the Hanmantgaon plantation was not in such good condition. Small plantations of sandalwood were attempted in each range, but with indifferent results.

178. The forest guards of the Poona division collected 177 khandis 12 maunds and 11 pounds of seeds, and they prepared with their own hands 129,500 pits in which seeds were sown, and they likewise broad-casted seeds over 993 acres, all without expense to Government. All the exploited coupes in the bábul reserves representing 404 acres 21 gunthas were ploughed and sown, and 46,151 pits were made in the hill reserves by hired labour, and were sown with mixed seeds. In the nursery attached to the range forest office in the city of Poona 1,000 date plants and 2,000 sandal plants are doing well, and there are likewise upwards of 50,000 teak and other seedlings in small pot, being got ready for planting out upon the hill sides overhanging the Southern Marátha Railway in the Haveli range. The sandalwood experimental plantations, with seeds obtained from Coorg, did not succeed. But Sind bábul seeds, sown in all the river bank bábul reserves, are making a promising show. The rainfall was inimical, but where cattle and man are kept out there nature restores ligneous vegetation to the soil and forces it to grow despite climatal conditions being unfavourable.

179. Mr. Fagan, Deputy Conservator of Forests, came to the Sátára district as Divisional Forest Officer during the year of this report after an absence from the district of 15 years, and in his administration report he records that he has seen some very good plantations, the result of continued labour and careful protection during the past 15 years; and they show more than anything else how trees of valuable species can be brought on to land that previously contained nothing, whatever it might have had originally in the shape of forests. The plantations at Borgaon, Dare Budruk, Kodoli in the Sátára range, at Chachegaon in Karád, at Mandrul in Pátan, Aitodeh in Válva, at Lingmála, Pádli in Koregaon, besides many others testify to the unceasing and successful endeavours of the department to grow trees under extremely unfavourable conditions. The year of the report was an exceptionally bad one for plantations in the Sátára district; the rainfall was irregular and below the average. The sandalwood nurseries suffered from the drought, and plantations which are supplied with water from the Public Works Department canals had their supply cut off. Nearly one hundred rupees were expended in clearing out springs and deepening them when the water ran short in the Vellu, Borgaon and Aitodeh plantations. 20,844 acres of hill-sides within Reserved Forest were sown broad-

cast with seeds, the greater portion of it by forest guards, who collected personally much of the seeds; and 1,182 acres and 35 gunthas of hill-sides were likewise treated by forest guards in a more detailed manner, for they dug pits and sowed seeds in them.

180. In the Sholápur division the smaller kinds of seeds are broad-casted, whilst the larger kinds, such as ain, teak, &c., have been dibbled into the soil by paid labour. Each forest guard in charge of a beat is required to prepare 100 pits for mangoes 2′ × 2′ × 2′, and 3,600 pits 1 foot in diameter and 1 foot deep for other seeds such as bábul, nimb, bor (Zizyphus jujuba), tamarind, &c., the sowings being effected just before the setting in of the monsoon rains. By expenditure costing Rs. 437-15-8, of which hired labour came to Rs. 169-11-2, a total of 3,787 acres were operated over, 3,553 acres and 18 gunthas of it having been treated by broad-casting, and 235 acres and 26 gunthas by dibbling. The cultural operations of beat guards, which were performed without any cost to the State, are to be seen in the table below:—

No.	Range.	Area pitted.		Area dibbled.		Area broad-casted.		Total.	
		A.	g.	A.	g.	A.	g.	A.	g.
1	Sholápur	58	14	39	30	1,141	7	1,239	11
2	Bársi	6	29	.....		176	0	182	29
3	Mádha	48	0	.....		764	18	812	18
4	Karmála	62	0	20	4	589	0	671	4
5	Pandharpur	20	0	15	0	969	36	1,004	36
6	Sángola	30	0	30	0	1,722	0	1,782	0
7	Máleiras	31	0	35	0	2,413	0	2,479	0
	Total ...	256	3	139	34	7,775	21	8,171	18

The quantity of seeds collected by the forest guards in the division measured 78 khandis 17 maunds and 9½ seers, while 27 khandis 13 maunds and 12 seers were purchased, and 2 khandis 26 maunds and 13 seers were imported: so that in addition to the natural shedding of seeds by the trees standing in the forests operated upon, 109 khandis 2 maunds and 6 seers of mixed seeds were sown by human agency. Careful supervision is required to be maintained over the forest guards, both in the collection of seeds and in the sowing of seeds. It may be taken that, practically, the seeds mature on the trees in April and May, and they have to be under the soil before the 1st June, when seeds are bought they are measured before the pátil and the kulkarni of the village, who testify to correct weight and to proper price paid and charged. The results of the majority of the sowings have been all that could be wished in the Kamthi Budruk Reserved Forest; the bábul seedlings from the beat guards broad-casting came up quite as thickly as a grain crop, and that in a year when the rainfall has been admittedly untimely and scanty. Bábul and other forests, which have been created since the days of the Deccan famine, are being worked now by the axe for the local market, and away in the far east in the Bársi range there is a very promising young mixed forest coming on upon the slopes of the low hills on the northern frontier, more particularly at Yedshi where the growth is especially close and vigorous; the teak tree has re-appeared and is growing beautifully in goodly numbers, after it had been so long absent that the oldest villager knew it not by sight and could not fix a name to it.

181. Though the season was excessively wet in Gujarát, the rains held off completely during June in the Surat division, whereby planting operations were much delayed. Exploited coupe No. 1 of the Gandeva Reserved Forest was sown up in pits 1 foot deep and 6 feet apart, with seeds from the Dángs; seedlings locally raised were also planted out in it, teak occupying every alternate pit; and in the month of November 1891, the whole surface was carpeted with seedlings and shoots; blanks were planted up in reserves in all the ranges by transplants of naturally sown seedlings from surrounding forests by hired labour, and every forest guard had to plant one acre in his beat

without outside help, and in addition thereto to broad-cast seeds over a larger area. The results are satisfactory. The Goema Reserved Forest now exhibits a very interesting spectacle to a forester: its site was barren waste land in the knowledge of the writer of this report 23 years ago, and it was then sown up chiefly with bábul; and seedlings of teak, of terminalia, anogeissus, dalbergia, &c., raised in nurseries, were planted out, subsequently among the bábul; the latter grew up to marketable size, and has been cut out at different times after it had been overtopped by the teak and junglewood saplings, which are now entirely suppressing the few remaining bábul trees in the struggle for the survival of the fittest, while the receipts already obtained by the sale of the exploited bábul wood has more than paid the expenses of creating a very rich little forest estate.

182. One hundred and fifty-eight maunds and 13 seers of seeds of teak and other trees were dibbled by forest guards during the rains of 1891 over 373 acres of blanks within the Reserved Forests of the Panch Mahále division. 89 acres were added to the Vejalpur plantation where 26 maunds and 6 seers of seeds were sown, and blanks inside the reserves in all the ranges were sown and planted up by hired labour. The seeds germinated very well and in the early part of the cold weather the seedlings, especially the bábul in the Eastern Kálol block raised from seeds imported from Sind, were looking healthy, but failure of the late rains tried the growing plants. The Conservator found the forests generally well filled with young growth, except in the very exposed portions, where cattle puddle the ground in the rains, and its surface hardens under the subsequent action of the sun into the similitude of sun-dried bricks.

183. This statement shows the total expenditure incurred on plantations in the several divisions of the Northern Circle with the areas treated during the year under different methods:—

No.	Division.	Regular Plantations.				Cultural Operations.				Total Cost.	Remarks
		Area in Acres.				Area in Acres.					
		On 1st April 1891.	Added.	Excluded	On 31st March 1892.	On 1st April 1891.	Added.	Excluded.	On 31st March 1892.		
		Acres.	Acres.	Acres	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	
1	North Thána ..	2,215	10		2,225	15,860	7,204	...	23,064	792	
2	South Thána ...	390	225	171	444	4,284	122	...	4,406	789	
3	East Khándesh ...	...	...	...	...	15,849	3,020		18,869	75	
4	West Khándesh	42	...	25	17	20,930	265	...	21,195	605	
5	Násik	...	...	...	..	8,188	865	394	8,659	1,236	
6	Ahmednagar... ...	142	...	...	142	11,098	8,756	...	19,854	2,024	
7	Poona	...	408	...	408	39,937	1,187	...	41,124	1,614	
8	Sátára	3,194	17	...	3,211	114,786	1,364	...	116,150	666	
9	Sholápur	...	...	...	...	59,430	3,789	...	63,219	436	
10	Surat	...	...	...	...	1,006	265	..	1,271	853	
11	Panch Mahále ...	113	123	...	236	449	160	...	609	259	
	Total	6,096	783	196	6,683	291,817	26,997	394	318,420	9,379	

9.—EXPERIMENTS WITH EXOTIC TREES.

184. Nothing new has been attempted in this direction during the year. The casuarina can scarcely be termed an exotic in the present day, as it is well established and has naturalised in the flora of Western India. The casuarina plantations along the sea shore in the Dáhánu and Umbargaon ranges of the North Thána division are doing fairly well. A quantity of seeds obtained from Kárwár in the Kánara district were sown in a nursery at Tithal near Bulsár, in view of making plantations upon the available waste lands on the sea shore in the neighbourhood. The nursery was well screened against the south-westerly winds, which blow with violence during the monsoon, and the seeds germinated very profusely; when they were a month old they were transferred to pots made by tying together face to face two ordinary roof tiles; and at the end of the year 1,255 plants, about one foot high, were in the nursery. If the plantation at Tithal is a success, as there is every reason to believe it will be,

many miles of the sea-board in the Surat district, at present unutilised drifting sandy wastes, can be converted into profitable casuarina plantations.

185. The Egyptian date palms are not doing well anywhere, and the Australian eucalypti do not find the Bombay Presidency so favourable to their growth as the Nilgherries apparently are. It is not desirable for the Forest Department to waste money upon the experimental cultivation of exotics when the local flora contains such very numerous kinds of beneficent, beautiful and valuable trees.

10.—EARLY THINNINGS, REMOVAL OF INFERIOR SPECIES, CUTTING OF CREEPERS, &c.

186. The forest guards in most divisions are provided with a Maráthi koita, a kind of sickle or curved knife, wherewith to cut creepers; and this they are required to undertake in the forests of their beats without any paid assistance.

187. A species of loranthus, a parasitic shrub, is found growing on the branches of many trees of various kinds in the Thána forests: it affects chiefly teak trees, and attaches itself to the leading shoot as well as to side branches, and its roots penetrate the bark to the cambium layer with which they contract an organic adhesion so as to derive nourishment from the sap of the tree. The loranthus impoverishes and eventually kills the limb upon which it has established itself; it flowers the greater part of the year, and its berry is round about the size of a pea: birds and the natural dropping of the seeds cause its spread. The Collector of Thána drew the attention of the Conservator to the prevalence of loranthus in the Thána forests, and measures are being undertaken to exterminate this pest by cutting out all trees, which have been attacked by it in the coupes of the season, and by searching all closed forests (exploited coupes) annually with a view to lop off the limb of any tree which may have provided a home for the loranthus.

188. The eradication of prickly-pear, Opuntia dillenü, natural order Cacteœ, from Reserved Forests in several divisions, has been carried on with vigour. This pestiferous plant, which is a native of Brazil, and now so common about most of the Deccan villages where it provides a safer refuge for wild pig, snakes and vermin of sorts in its dense impenetrable tangled masses, which form an unbroken cover over acres of ground, was introduced into Western India, so native tradition explains, by a Marátha Sirdár Dábhádé by name, who brought a few seeds of it in his palanquin from Delhi, and his gift has been as noxious to the Deccan as was the shirt to Hercules. It is a very valuable plant for the reboisement of the barren and denuded uplands of the Deccan, for it establishes itself upon the most stoney soilless places, and it refuses to be turned out when it has once taken root, save at great cost and labour; filth and debris are arrested by it and accumulate round it, and its own roots open out the pores of the earth and form soil. The natives call it the nágphana nivadung; armed plants such as the euphorbia nerrifolia, nivulia, &c., are likewise generally termed "nivadung" in the vernacular, with Sabri and Thor added to denote their species: but the prickly-pear is called the nágphana nivadung because its obvate, flat, fleshy joints resemble the expanded hood of the cobra. It is a very common mistake among officials and others to speak, and to write, of the Sabri, euphorbia nerrifolia, as cactus, which it has no claim to be, and thus confusion is caused. The prickly-pear is botanically called the cactus indicus by Roxburgh in his Flora Indica. The opuntia dillenii is enormously aggressive with its very great power of spreading, for the joints strike root wherever they may find themselves carried and dropped by man, or by the wind or by water, and the seeds are deposited in all directions by birds, which eat the fruit, and when once this plant has been introduced upon a boundary line as a living hedge, an office it discharges very effectively, it very soon invades the property it was originally brought to protect. New growth, seedlings and shoots, come up here, there and everywhere, and as it is very gregarious it soon occupies land to the exclusion of superior vegetation and of grasses. It has to be cut down limb by limb, levelled to the ground, then the roots have to be dug up, and the whole carcass buried under several feet of earth; this is the most

effective method of eradicating it; simply cutting it down, drying the severed parts in the sun, and burning them, which is a costly proceeding, will not always destroy the persistent vitality of the plant. The nine-lived cat would have no chance against the prickly-pear in a competition against death by violence. In the East Khándesh division, where there is not fortunately much prickly-pear, the beat guards dug it out wherever it showed itself. In the Násik division an area of 670,248 square feet within the Raolas Reserved Forest in the Niphád range was cleared of prickly-pear at a cost of Rs. 103-5-0. In the Ahmednagar division 16,179 cart-loads of prickly-pear were removed from 366 acres 26 gunthas of bábul forests in different ranges, and the material was buried in nálas and rifts under two feet of earth, the cost of the operation amounting to Rs. 1,034-8-0.

189. In the Poona division ten gangs of six men each have been engaged partly as famine work for varying periods in the Haveli, Indápur and Bhimthadi ranges in digging out prickly-pear and trimming the hedges of this interesting plant, wherever it was getting beyond bounds. 73½ acres were cleared entirely and 7,131 cart-loads of the prickly-pear were destroyed. Forest guards removed all young and fresh growth from the forests of their beats. Rs. 1,960-1-3 were expended in the division.

190. Prickly-pear was removed from the Burlé bábul reserve in the Tásgaon range by hired labour, at a cost of Rs. 198-12-6; and creepers were severed and killed by forest guards in the forests of the western gháts in the Sátára division.

191. All the forest guards of the Sholápur division are equipped with bill hooks to keep their reserves free of creepers and also to remove freshly intruding prickly-pear, and paid labour has been employed where the forest guards were unable to cope with the evil. This statement shows the work performed :—

No.	Ranges.	Square Feet.	Cost.		
			Rs.	a.	p.
1	Sholápur	30,290	154	14	0
2	Mádha	18,074	86	1	6
3	Karmála	69,600	45	3	6
4	Málsiras	27,546	29	13	6
	Total ...	145,510	316	0	6

192. The forests of Khánbor and Singalkas in the Dángs were treated for creeper cutting; all the valuable timber trees which are of exceptionally promising growth were freed from the embraces of the large climbers, which were abundant and obstructive: the operation cost Rs. 7-9-0.

11.—COMMUNICATIONS AND BUILDINGS.

(a) Roads and Bridges.

193. The Divisional Forest Officer, West Khándesh, spent a small sum of Rs. 14-8-6 in repairing the Kalambari road in the Pimpalner range, and the Divisional Forest Officer, Surat, executed the usual repairs to the main road in the Dángs extending from Waghai to near Dhuda, a distance of 36 miles, and to the branch road that ascends the Sarwar plateau from Pimpri and descends into the Purna valley at Kalibel, and from thence goes *viâ* Sajukpada on the Gira across the Rupgad hills, a distance of about 26 miles. The crossing of the Kapri river near Bibabari was cleared of boulders and made smooth and easy for the passage of timber laden carts. All the bridges in the lower Dángs, the planking of which had become rotten, worn out and unsafe, and the masonry work of which was in bad condition, underwent thorough repairs, and the bridge at Kasadpáda near Pimpri on the main timber road, which had been burnt down in the hot weather, was rebuilt.

194. The following is a brief account of the new works and repairs to existing roads, &c., undertaken during the year by the Public Works Department at the expense of the Provincial Service Budget, the original projects having been started either at the instance of, or with the concurring opinion of, the Forest Department :—

In the Thána district the Dáhánu-Jawhár road, 26 miles long, has been completed, practically, during the year, and will be extended to the Násik district; Rs. 12,690 have been expended upon it, making a total outlay of Rs. 2,09,519 on the road. The Váda-Shirghát road is a section of a projected road from Máhim and the Pálghar Station on the B. B. & C. I. Railway to cross the Sahyádri mountains by the Shirghát, and then to connect with the Ghoti Railway Station on the G. I. P. Railway beyond Igatpuri in the Násik district. The first 34 miles, Máhim to Váda, will be a local funds road, and will serve several forest blocks, the timber from whose coupes will travel to the Manor bandar and to the B. B. & C. I. Railway. The last 30¼ miles will be a provincial road; 21 miles of the road from Máhim east have been completed and are open to traffic, and the earth-works and culverts are finished on a further section of 8 miles. From Váda to the Shirghát the whole line is completed, and the road is already showing a heavy traffic from Váda to Parali, and some traffic up the ghát, but as soon as the through road to Ghoti is completed, it will be a busy thoroughfare; Rs. 43,007 have been expended on the road during the year of the report, making a total expenditure of Rs. 1,73,047. The earth-work of the forest roads through the Medwan and Nanewli khinds has been completed, and four wooden topped culverts have been constructed: the joining roads leading up to the khinds on both sides have been lined out, and earth-work on them is in progress. To make the roads useful the length of the joining roads will be extended from Manor to Shanvárpáda, about 4½ miles, and a branch of about 2½ miles to each of the khinds in place of the 6 miles originally proposed. Out of an estimate of Rs. 6,821, Rs. 200 have been expended on the Medwan khind during the year, and out of an estimate of Rs. 5,465, Rs. 999 have been spent on the Nanewli khind road. Mr. K. G. Desái, L.C.E., Executive Engineer of Thána, has been very helpful to the Forest Department in furnishing them with plans and estimates of roads and buildings, which have been projected from time to time in connection with the forest administration in the Thána Collectorate; and this officer has very fully earned the acknowledgments of the Forest Department for his ready and skilful assistance, and his ungrudging co-operation on all occasions, while the forest depôt houses, and the lines of traffic constructed by him afford evidence of the care and high professional knowledge with which he has directed these several works.

Mr. G. Owen Dunn, Executive Engineer of the Khándesh district, has made a commencement of the ghát road, leading down the Jakrai-bári from the Pimpalner táluka into the Dángs. The Dhuda Ghát about 12 miles in length in the Dángs has been surveyed and plans and estimates are under preparation. The road from Sháháda to Dondaicha, which carries a large timber traffic, has been in active progress, and 11 miles of the 17 are now open to carts.

The road from Hasteh to Barhe in táluka Peint of the Násik district, which will serve the exploitation of timber from State forests in Peint, has been in progress during the year, and a line of road between Ganeshgaon and Wasali in the Násik range, which will bring firewood into the city of Násik from the Ganeshgaon forests, has been planned and estimated.

In the Ahmednagar division the road from Randha to Samrad in the Akola range, the length of which is to be 9 miles and which is to pass the forests of Gohira and Bhundardareh, and is nearly parallel to the Prawara river, has been partially completed; and the road from Jámgaon to Kotul, which will open out forests in the Kotul valley, and is nearly 10 miles in length, passing over the Paibai Ghát, and through very hilly portions of the country, and crossing the Mula river near Kotul, has been opened to traffic, and a portion of it has been murumed where it is in black soil; a masonry dam has been built on the down stream side in the Mula river crossing.

In the Poona district 3 miles of the Ghore-A'mbegaon road, which will open out teak forests in the A'mbegaon range, has been finished during the year, and 2 miles have still to be constructed to lead the road into A'mbegaon.

In the Surat district a survey for a railway along the Tápti Valley towards the Khándesh district has been made this season by the B. B. & C. I. Railway Company, and when this line is constructed, it will be of very great benefit in opening out the Dángs.

(*b*) BUILDINGS.

195. The following statement shows in detail the works constructed during the year at the cost of the Provincial Services Budget, by the Public Works Department, at the instance of the Conservator of Forests under sanctions given by him from the discretionary grant of Rs. 2,000, which had been placed at his disposal under the orders contained in Government Resolutions No. 170A—703 of 25th April 1891, and No. 428A—1723, dated 13th October 1891, in the Public Works Department :—

No.	Executive Officer.	Name and Locality of Works.	Amount sanctioned.		
			Rs.	a.	p.
1	Executive Engineer, Poona ...	For making improvement to the Range Forest Office at Paud	126	0	0
2	Do. do. ...	For certain alterations and additions to the Range Forest Office, Haveli ...	59	0	0
3	Do. Khándesh.	For concrete floors to the Range Forest Office at Navápur .	18	0	0
4	Do. do. ...	Do. do. Sindkheda.	18	0	0
5	Do. do. ...	Do. do. Sháháda ...	9	8	0
6	Do. do. ...	For providing stone paving to the Range Forest Office at Pachora ...	94	0	0
7	Do. Sátára ...	For providing doors to the window of Range Forest Office at Koregaon ..	9	0	0
8	Do. do. ...	For making additions and alterations to the roof of the Range Forest Office at Dahivadi...	242	0	0
9	Do. do. ...	For providing a bonnet to the window of the Range Forest Office at Wái ...	7	0	0
10	Do. do. ...	For new glazed shutters to the windows of the Range Forest Office in the New Adálat	77	0	0
11	Do. do. ...	For additions and alterations to the Range Forest Office, Sátára ...	62	0	0
12	Do. do. ...	For cloth ceiling to the Range Forest Office at Shirála	38	0	0
13	Do. Kaira ...	For providing a concrete flooring and plank ceiling to the Range Forest Office, Jhálod	88	0	0
14	Do. do. ...	For making a flooring to the Range Forest Office at Kálol	64	0	0
15	Do. Thána ...	For providing ceiling to the Range Forest Office at Mokháda.	115	0	0
16	Do. do. ...	Do. do. Karjat ..	113	0	0
17	Do. do. ...	For providing teakwood ceiling and concrete flooring to the Range Forest Office at Khálápur	76	0	0
18	Do. do. ...	For providing additions and alterations to the Range Forest Office at Máhím ...	125	0	0
19	Do. do. ...	Do. do. Umbargaon.	13	0	0
20	Do. do. ..	Do. do. Dáhánu ...	163	0	0
21	Do. do. ...	Do. do. Bassein ...	153	0	0
22	Do. do. ...	Do. do. Thána ...	76	0	0
23	Do. do. ...	Do. do. Váda ...	145	0	0
			1,890	8	0

196. The following additional works have been undertaken by the Public Works Department during the year at the cost of the Provincial Service Budget.

Forest depôt houses, brick built, on a sanctioned plan and scale, have been built as under, but have not yet been handed over to this department:—

In North Thána Division.

Range.	Place.		Cost.		
			Rs.	a.	p.
Mahim ...	Pálghar ...	Railway Station, B. B. & C. I. Railway	1,083	0	0
Do. ...	Manor ...	A timber bandar on Vaitarna River ..	1,083	0	0
Dáhánu ..	Sawta ...	Tidal bandar	1,083	0	0
Umbargaon ...	Sanján ...	Do.	1,083	0	0

In South Thána Division.

Range.	Place.		Cost.		
			Rs.	a.	p.
Sháhápur ...	Wásind ...	Railway Station, G. I. P. Railway ...	1,173	0	0
Do. ...	Atgaon ...	Do. ...	1,061	0	0
Kalyán ...	Wángai ...	Do. ...	1,173	0	0
Khardi ...	Kasára ...	Do. ...	1,061	0	0

and a depôt house has been sanctioned for the Budlapur Station, but it has been difficult to obtain a site as the land here belongs to the Inámdár of Kulgaon; however the G. I. P. Railway Company have been asked to allow the depôt to be built within their station fencing.

A new office and seed-room for the Range Forest Officer of Taloda was completed and handed over to this department, and the adoption of the old fort at Dhadgaon in the Akráni range of the West Khándesh division to fit it for use as a Range Forest Office was in progress and nearly completed. Special accommodation for a Range Forest Office according to the prescribed plan has been provided in the new kacheri built at Erandol in East Khándesh, which has been completed during the year. The Range Forest Office at the Nandurbár kacheri being in a very shaky condition and inconvenient in many respects, has been undergoing repairs and alterations. A paved floor has been made to the Range Forest Office at Páchora and concrete floors to those at Sindkheda, Sháhada and Navápur, where white ants were found to be troublesome.

In the Násik division the Executive Engineer Mr. B. R. Hatherley constructed for this department during the year an office for the Range Forest Officer, Nándgaon, according to the prescribed form, at a cost of Rs. 1,490 against a sanctioned estimate of Rs. 1,630; and commenced a forest depôt house at Karanjali in the Peint range at an estimated cost of Rs. 1,407, against which Rs. 856 have been spent during the year; it will be completed in 1892-93.

197. Considerable funds had been provided in the Budget of the Surat division for the construction of several rest-houses for Forest Officers in different parts of the Dángs, but most of the money lapsed because skilled labour to construct the houses could not be obtained in the Dángs and could not be induced to come into the Dángs in sufficient numbers, for fear of the climate, and no contractors would come forward; consequently of the four bungalows proposed to be built, only one was undertaken departmentally: a commencement being made in the month of February, when a few carpenters and masons were persuaded to come from Chikhli in the Surat district: the site of this rest-house is a commanding position on the top of the Sarwar plateau; the house was unfinished at the close of the year. The existing rest-houses at Waghai and Pimpri in the Dángs underwent the usual repairs.

198. The following Statement exhibits the expenditure incurred by the Divisional Forest Officers in the Northern Circle in building rest-houses,

temporary depôt houses, forest guards' huts, mándavs or sheds for temporary depôt establishments, &c. :—

No.	Division.	Amount.		
		Rs.	a.	p.
1	North Thána	747	9	0
2	South Thána	2,315	8	0
3	East Khándesh	154	0	0
4	West Khándesh	888	5	0
5	Násik	494	3	0
6	Ahmednagar	1	6	6
7	Poona	75	5	0
8	Sátára	36	1	0
9	Sholápur	.....		
10	Surat...	1,304	7	4
11	Panch Mahále	270	9	6
	Total ...	6,287	6	4

199. The expenditure shown above against South Thána includes the cost, Rs. 1,871, of a bungalow with out-houses purchased at Tánsa from Messrs. Glover & Co., contractors of the Tánsa lake, under sanction of Government Resolution No. 4171 of the 18th June 1891, for a first rest-house.

(c). Other Works.

200. The water in the Dángs although obtainable from pure springs is everywhere polluted and rendered unwholesome by the dirty habits of the villagers, and this is possibly one of the causes of the frequent sickness of forest officials and of the population residing in the Dángs. With a view to remedy this evil to some extent, wells with a frame work of wood were built at the undermentioned places in the Dángs at the cost stated :—

	Rs.	a.	p.
Linga	11	5	0
Malgaon	10	0	0
Gundohol	10	0	0
Umaria Mahál	10	0	0
Jaran	6	0	0
Gulkund	10	0	0
Amthava	15	0	0
Gondal Vihir	10	0	0
	82	5	0

Thus rough wells of good pure spring water were provided in eight different directions within the Dángs for the small expenditure of Rs. 82-5-0. Outlay of this kind carefully directed cannot fail to be highly profitable to the State in the health of its servants employed in malarious localities, and to be beneficial to the local population.

CHAPTER IV.

OUTTURN AND WORKING.

I.—DEPARTMENTAL OPERATIONS.

(1).—Timber.

201. The outturn in cubic feet of timber exploited departmentally from the forests of the different divisions of the Northern Circle, with the cost incurred

and the amount realised by its sale during the year under report, as compared with the results of the year preceding, is given in the following statement :—

No.	Division.	1890-91.					1891-92.				
		Timber in the rough ; logs.	Timber in the rough ; poles.	Miscellaneous.	Cost	Receipts	Timber in the rough ; logs.	Timber in the rough ; poles.	Miscellaneous.	Cost.	Receipts.
		C. ft.	C. ft	C. ft	Rs	Rs.	C. ft.	C. ft.	C. ft.	Rs.	Rs.
1	North Thána	.....	1,788	...	204	313	.....	10,839	...	2,346	2,175
2	South Thána	.....	58,824	...	1,714	8,686	.....	17,247	..	987	2,532
3	East Khándesh ...	.....	21,300	...	1,455	13,947	.....	19,532	...	1,339	10,448
4	West Khándesh ...	28,768	23,156	29,073	3,296	36,376	11,003	66,997	67,812	4,158	48,985
5	Násik	40,066	...	...	348	2,067	.....	26,802	...	206	3,103
6	Ahmednagar	... ..	179,156	319	1,627	9,509	.....	35,098	92	1,261	7,977
7	Poona	... ..	51,678	...	3,369	26,012	.....	50,785	...	3,088	26,130
8	Sátára	.....	21,060	...	1,385	8,189	.....	20,041	...	1,470	13,618
9	Sholápur	1,310	220	...	24	361	931	... .	...	5	90
10	Surat	65,850	58,514	..	31,305	54,949	104,020	72,645	...	14,715	48,136
11	Panch Mahále... ...	13,292	4,368	8,594	1,340	3,238	.....	24,464	951	996	4,197
	Total ...	155,286	420,864	37,986	46,067	1,64,147	115,954	344,450	68,855	30,571	167,891

202. The departmental fellings in the North Thána division were made in five coupes out of 23 unsold coupes of the year, not with the object of adding to the revenue of the division, but to give effect to the orders of Government contained in their Resolution No. 650 of the 26th January 1891, which direct that the unsold coupes should be exploited departmentally in the interest of the people of the district; but the result was that there was absolutely no demand for the material felled in two coupes out of the five; this material consequently remained unsold; while the material in the other three coupes fetched poor prices, which barely repaid the expenses of exploitation.

203. The departmental fellings in South Thána during the year were made for the same reason, *viz.*, in consequence of the coupes having remained unsold; but in view of the failure of such sales in the year preceding, only two coupes were selected for departmental fellings, and these were in the Kalyán táluka. In addition to this, trees remaining on foot along the Tánsa Duct strip (90 feet broad) were felled at the instance of the Bombay Municipality, and were sold by auction for Rs. 215.

204. The revenue authorities, on being referred to on the point, informed that it was not necessary in the interests of local supply to exploit departmentally the remaining unsold coupes, as local supply would be satisfied without the material of these coupes being felled: and the Collector intimated to the Divisional Forest Officer that it was not necessary to work any other coupes departmentally than those determined.

205. The treatment of the forests does not prescribe the exploitation of the coupes on the system of working adopted because the timber contained within the coupes and to be felled is mature, and its time for removal has arrived; the coupe is put into the market chiefly to meet the demands of local supply; the trees felled are not mature; on the other hand, many of the trees felled are diseased and bad, and require to be removed to make room for a better growth; but taking any coupe as a whole, nothing is lost to the proprietor by not cutting out the trees other than the standards in the year of its proper turn under the revolution: what may appear to be a loss of income at first sight, is more than made up by the annual progressive increment of wood giving enhanced value to the coupe in a future year.

206. The difference in outturn and receipts in the East Khándesh division was due to the fact that a larger quantity of teak timber was extracted from the Jámner teak numbers in the year 1890-91 than in the year under report; while the prices of the material at auction sales, which are regulated by the condition of the cotton harvest of the district, were poor owing to the failure of the cotton crop, and consequently there was a decrease of Rs. 3,499 upon the revenue of the preceding year.

207. The increase in outturn of timber and in receipts in the West Khándesh division was, to a great extent, due to extensive clearances of timber upon the cultivation areas within defined Bhil settlements in the North Tápti ranges,

and upon revenue waste and occupied lands, which were required to be freed of timber growth as quickly as possible.

208. In the Deccan divisions of Násik, Ahmednagar and Poona, the departmental operations were undertaken on the same lines as usual, and the variations in cost and receipts are so very small that they call for no special explanations.

209. In the Sátára division departmental operations of timber were undertaken in all the ranges except Tásgaon where the timber is bábul, and Mahábaleshvar where the forests are ever-green with the jámbul tree predominating. The material felled secured better prices at auction sales than during the year before, and hence the increase of Rs. 5,429 in the revenue from this source.

210. No departmental timber operations of importance were undertaken in the Sholápur Division, where workable forests of bábul, created within the last 20 years, have been differentiated into blocks, which are sub-divided into compartments, one of which is formed into a coupe annually for sale standing to contractors and purchasers.

211. The small difference in cost and receipts of the Surat division is explainable by the fact that no departmental fellings of green teak were undertaken in the Dángs, on account of there being a large stock on hand from the preceding year. 1,316 khandis were carted in addition from Khubita to the Wagrech and Vejalpur depôts by contractors on behalf of the department, at the rate of Rs. 4-6-0 and Rs. 5-2-0 respectively, the total cost amounting to Rs. 5,764. Owing to the persistent combination of traders, the auction sales of timber in the Wagrech depôt did not succeed again this year as well as was expected, and consequently the greater portion of the sales had to be effected retail; the different logs of timber in the depôt were marked with their prices, so that intending purchasers might select such lots as they required. In this manner the total sales from the depôt amounted to 2,218 khandis of 12½ cubic feet, which realised Rs. 30,990, giving a very satisfactory and high average rate of Rs. 14 per khandi or Rs. 56 per ton of 50 cubic feet, and returning a considerable profit.

212. Taking the selling rate *in situ*, in the Dángs, at Rs. 7 per khandi at the outside, and adding Rs. 4-8-0 for conveyance, &c., to the coast, the prices in the Dángs and at the coast compare in the proportion of Rs. 11-8-0 to Rs. 14, or Rs. 2-8-0 per khandi in favour of the Wagrech depôt. The quantity, 2,218 khandis, disposed of from the coast depôt, multiplied by this difference, *viz.*, Rs. 2-8-0, gives a net profit of Rs. 5,545 during the year, as the gain by opening the coast depôt at Wagrech near Billimora, which possesses a tidal bandar upon the estuary of Káveri and Ambiká rivers, and a railway station on the B. B. & C. I. line. The outlay of Rs. 1,455 in purchasing land for this depôt in a more suitable situation to serve the conveniences of the trade has therefore been fully justified.

213. In Mándvi, too, the department had to contend against a combination of the local wood-dealers, who have their head-quarters at Kadod; to defeat which a great portion of the timber felled departmentally had to be floated down the Tápti river to Fulpada near Surat, as was once done during 1889-90, to a temporary sale depôt, where it was disposed of by auction successfully. With the coast depôt established at Wagrech for the sale of Dáng timber, the department is now in a better position to hold its own footing against combinations of timber merchants, and to realise its annual revenue, which used to be a matter of uncertainty formerly. The clearing of coppice wood undergrowth within a radius of one mile round the town of Mándvi was also undertaken during the year at a cost of Rs. 878 and the timber sold for Rs. 3,963. A small increase in outturn and receipts of the Panch Maháls division as regards departmental operations is due to better prices at auction sales.

(2).—Firewood.

214. The outturn in cubic feet of firewood, including the loppings of teak and other trees cut departmentally in the several divisions of the Northern

Circle, together with the cost incurred and the amount realised, as compared with the results of the preceding year, is given in the following statement:—

No.	Division	1890-91.			1891-92		
		Firewood.	Cost.	Receipts	Firewood.	Cost.	Receipts.
		Cubic Feet	Rs.	Rs.	Cubic Feet	Rs.	Rs.
1	North Thána ...	6,675	58	281	79,602	633	415
2	South Thána ...	76,237	126	523	...	...	2
3	East Khándesh ...	302,760	2,078	11,868	404,910	2,999	14,230
4	West Khándesh ...	146,435	2,005	2,986	385,562	1,836	11,014
5	Násik	251,829	1,119	3,831	227,984	1,150	3,795
6	Ahmednagar ...	19,223	24	759	154,818	...	755
7	Poona	206,203	1,271	4,398	81,081	856	1,796
8	Sátára	69,798	781	2,210	244,920	1,343	4,230
9	Sholápur	17,749	141	1,140	15,130	100	1,293
10	Surat	...	..	...	18,491	...	501
11	Panch Mahále ...	278,974	...	3,396	210,700	...	3,718
	Total ...	1,375,888	7,603	31,387	1,859,198	8,417	41,749

215. No departmental fellings of firewood were undertaken in the two forest divisions of Thána. In the East Khándesh division the increase in out-turn, cost and receipts is due to the clearing of disforested lands at the foot of the Sátpuda hills, under Government Resolution No. 3563, dated 25th May 1891, in the Revenue Department. The departmental fellings of firewood in the West Khándesh division were undertaken in two ranges, Dhulia and Nizámpur; while in other ranges firewood operations were confined to loppings of trees felled for timber. The increase of Rs. 8,028 is due to the fact that all the firewood that was on hand from last year was sold during the year, there being a large demand for it. The production, cost and receipts from firewood in the divisions of Násik and Ahmednagar during the year are pretty nearly the same as those of last year, and call for no remarks. The decrease in the Poona division is due to less firewood being expolited departmentally, coupe sales taking the place of departmental exploitation; while the increase in Sátára is due to a better market for firewood. Practically no departmental fellings of firewood were undertaken in the divisions of Sholápur, Surat and Panch Mahále, but the loppings and branches of trees felled for timber were classed as firewood and sold as such. No departmental operations were undertaken as regards bamboos and sandalwood.

(3)—Other Minor Produce.

216. The departmental collection of hirda, the fruit of terminalia chebula, comes under this sub-head; and the following statement will exhibit the results during the year in the divisions of North and South Thána, Násik, Ahmednagar, Poona and Sátára, as compared with those of the year preceding:—

No.	Division.	Yield.		Cost.		Receipts.		Remarks
		1890 91.	1891 92.	1890-91.	1891-92.	1890 91	1891 92.	
		K. m lbs.	K. m. lbs	Rs. a. p.	Rs a p	Rs. a. p.	Rs. a p	
1	North Thána	35 0 0	70 8 0		497 8 0	550 0 0	1,770 4 0	
2	South Thána	71 23 10	143 7 0	501 15 2	980 8 0	2,029 10 10	4,249 8 0	Credited under II e
3	Násik ...	49 2 0	49 0 0	28 11 3	21 8 5	1,453 11 8	1,431 0 0	
4	Ahmednagar .	102 13 6	106 3 20	758 14 3	851 8 9	3,350 13 2	3,100 0 0	Do. do
5	Poona	151 2 26	263 5 8			2,914 0 0	6,080 13 1	
6	Sátára	675 1 20	741 10 13	4,418 13 4	5,096 11 11	16,808 15 2	19,409 9 2	
	Total	1,084 15 12	1,360 1 13	5,708 6 0	7,447 13 1	26,607 2 10	36,041 1 3	

217. The system of collecting hirda departmentally was reverted to in the North Thána division with good results, the collection being made by wild tribes as usual. In the South Thána division hirda was collected departmentally as in the year before, and although the hirda crop was only an average one, still the revenue derived was the highest on record, owing to better prices ruling the auction sales. A small quantity of hirda was collected departmentally in the Násik division in the Peint range, at a cost of Rs. 9-4-0, which realised Rs 30-8-0;

in the other ranges, it was collected on the share system as usual. The small decrease in outturn and receipts in Ahmednagar call for no remarks.

218. In the Poona division hirda was collected on the share system, while in the Sátára division it was gathered departmentally; and the results are very satisfactory in both divisions, owing to a greater demand for this myrobalan of commerce, and in consequence to the better prices attending the departmental auction sales.

II.—REMOVAL OF PRODUCE BY PURCHASERS.

(1).—Timber.

219. The outturn, in cubic feet, of timber removed from the forests of the several divisions of the Northern Circle, by consumers and purchasers at their own expense, is exhibited in the following statement, with the amounts realized, as compared with the results of the previous year :—

No.	Division.	1890-91.				1891-92.			
		Timber in the rough; logs.	Timber in the rough; poles.	Miscellaneous.	Amount realized.	Timber in the rough; logs.	Timber in the rough; poles.	Miscellaneous	Amount realized.
		C. ft.	C. ft.	C. ft.	Rs.	C. ft.	C. ft.	C. ft.	Rs.
1	North Thána ...	...	1,125,498	...	2,69,773	...	970,950	...	250,307
2	South Thána ...	...	1,610,172	...	1,19,251	...	563,670	...	96,413
3	East Khándesh ...	242,700	...	...	4,929	213,000	...	..	4,354
4	West Khándesh...	...	...	123,888	10,110	...	...	213,750	8,884
5	Násik	387,169	...	...	16,817	641,262	...	...	33,485
6	Ahmednagar ..	...	...	1,045	243	...	...	305	158
7	Poona	97,645	93	...	202	193,632	142	...	235
8	Sátára	1,391	473	...	778	...	2,230	...	801
9	Sholápur... ...	...	...	130	124	...	...	129	176
10	Surat	34,899	1,883	281,700	37,786	...	...	...	33,320
11	Panch Mahále ...	218,202	50,787	61,185	47,247	2,307	17,117	17,772	55,230
	Total ...	982,006	2,788,906	467,948	5,07,260	1,050,201	1,554,109	231,956	4,83,366

220. In the North Thána division 160 coupes, laid out in different blocks of the Working Plans series, by the Surveyors of the Working Plans Branch, were offered for sale, but out of them 136 only found purchasers. In the South Thána Division 102 new coupes and 21 unsold coupes of the previous year excluding the Karjat and Khálápur ranges, were offered for sale, and 98 were sold. The average price per acre in North Thána remained unchanged, but in the South Thána division it went below the average of the preceding year, owing to the unfavourable situation of the coupes, the inferior quality of the material they contained, and to some extent to the Railway Company having enforced their traffic rules more strictly, by enhancing the cost of transport per waggon-load of timber.

221. On the whole, the coupe system in Thána has been very successful, but it may happen that for some years to come all the coupes offered for sale will not attract purchasers; however, if some coupes do remain unsold and unexploited, it does not follow that it is a matter for regret, so long as local supply is not affected; the timber unmarked in the coupes for being felled and removed is not mature and does not deteriorate or depreciate by keeping for a year or two longer; the system of working applied to the Thána forests is a compulsory one owing to the presence of certain local conditions or factors. If coppice at a certain age does not sell, it does not harm by being given a longer period of existence, unless it has been grown specially to produce a rafter or a pole of certain dimensions or age. Rules 21 and 22 of the rules of September 6th, 1892, published under Section 75 (*a*) of the Forest Act, prescribe how unsold coupes are to be treated.

222. In the two divisions of the Khándesh Collectorate there is a greater falling off this year than ever, and this is attributed to the general depression caused in trade by the partial failure of the staple crop of the district and the price of cotton having ruled low.

223. The outturn of the Násik and Poona divisions is derived from the royalty trees outside the demarcation line, while that of the Ahmednagar, Sátára and Sholápur is from the sale of dead and fallen timber, and compares favourably with the results of the preceding year.

224. In the Surat division prices ruled low in consequence of a slack demand coupled with the increasing supply from the Thána forests to feed the Yeola and other timber markets above the ghâts, which used formerly to draw their supplies mainly from the Dángs.

225. The result of the Panch Mahâls Division compares favourably with that of the past year.

226. The following statement exhibits the quantity of fuel removed by purchasers, either by contract or on permits issued on payment of fees in advance at their own cost, together with the revenue realized as compared with the preceding year. The results are extremely satisfactory :—

Division.	Firewood in Cubic Feet.		Receipts.	
	1890-91.	1891-92.	1890-91.	1891-92.
	C. ft.	C. ft.	Rs.	Rs.
North Thána	1,517,820	1,204,388	5,173	6,905
South Thána	698,763	1,659,862	1,722	1,507
East Khándesh	1,960,560	1,135,280	10,831	9,459
West Khandesh	100,305	167,900	3,346	3,394
Násik	51,336	90,568	1,671	1,381
Ahmednagar	45,004	62,797	2,966	3,480
Poona	19,207	42,849	6,150	8,315
Sátára	7,337	9,854	284	468
Sholápur	1,170	1,692	830	4,337
Surat	.....	.....	254	787
Panch Mahâls	291,653	239,400	1,992	2,294
Total ...	4,693,155	4,614,590	35,219	42,327

227. Bamboos were removed by purchasers and consumers from the forests of all divisions of the Northern Circle except Sholápur (where there are none), either by contract or on the permit system, in head-loads, cart-loads, &c., and the following table compares the results of the year with those of the previous one. Here, again, the results are highly satisfactory :—

Division.	1890-91.				1891-92.				Remarks.
	Bamboos removed.			Amount realized	Bamboos removed.			Amount realized.	
	Cart-loads.	Head-loads.	Number.		Cart-loads	Head-loads.	Number.		
				Rs.				Rs.	
North Thána	...	...	111,419	9,284	8,560	.	240,887	10,663	
South Thána	377	3,018	202,721	5,610	740	1,843	303,922	7,489	
East Khándesh... ...	...	...	380,000	4,660	...	..	407,845	4,674	
West Khándesh ...	.	...	153,270	1,755	...	..	171,782	2,600	
Násik	151	895	203,838	5,042	...	9,989	196,203	4,702	
Ahmednagar	...	...	28,087	287	...	...	32,847	342	
Poona	...	...	104,134	1,102	...	.	148,422	1,540	
Sátára	...	3,096	80,200	708	...	1,968	14,675	329	
Surat	...	...	483,906	10,949	...	...	727,032	16,306	
Panch Mahâls	56	4	127,426	1,667	99	4	143,378	1,661	
Total	584	7,013	1,803,001	41,074	9,399	13,804	2,392,993	50,306	

228. The following statement shows the realizations from minor produce such as hirda, apta and temburni leaves, tarwad and shombi bark, honey, wax, fruits, stones, earth, kárvi, &c., removed from the forests of the several divisions of the Northern Circle by consumers and purchasers as compared with the results of the last year. In West Khándesh the loss is chiefly on Rosha oil stills, in

Ahmednagar in consequence of there being no outstandings of the previous year to collect, while the gain in other divisions is due to favourable prices having been obtained in the sale of hirda, apta and temburni leaves, &c. On the whole the results are very satisfactory :—

Division.	Amount, 1890-91.	Amount, 1891-92
	Rs.	Rs.
North Thána	3,655	4,902
South Thána	1,946	2,266
East Khándesh	964	1,208
West Khándesh	12,607	8,097
Násik	3,394	4,544
Ahmednagar	1,547	1,370
Poona	4,470	7,114
Sátára	2,669	3,340
Sholápur	95	541
Surat	1,400	2,225
Panch Maháls	1,730	1,942
Total ...	34,477	37,849

III.—FREE GRANTS OF FOREST PRODUCE.

229. The following is a comparative statement of free grants of timber made by Revenue Officers in almost all cases during the last three years, from the forests of the several divisions of the Northern Circle :—

No.	Division.	1888-89.	1889-90	1890-91.	1891-92.
1	North Thána	340	73	1,633	...
2	South Thána	1,166	168	3,049	652
3	East Khándesh	...	...	..	210
4	West Khándesh	159	45	142	714
5	Násik	368	267	217	177
6	Ahmednagar	4	297	10	139
7	Poona	817	539	519	709
8	Sátára	85	354	699	..
9	Solápur	...	...	...	
10	Surat	194	...	790	15
11	Panch Maháls	307	193	1,547	535
	Total ...	3,440	1,936	8,606	3,151

IV.—PRODUCE REMOVED BY RIGHT-HOLDERS AND UNDER PRIVILEGES.

230. It is entirely impossible to give an exact estimate of the value of the forest produce removed by privilege-holders, as the exercise of privileges is not restricted to fixed times, and is not limited, in most cases, to a defined quantity. It is at the same time very difficult to arrive at any correct knowledge of the value of the exploitations of timber, firewood and other forest produce taken out of the forests free of charge by forest villagers, wild tribes and others, for domestic use, or for sale. The free pasturage enjoyed by cattle of forest villagers inside Reserved Forests alone represents a considerable amount. It would be incorrect to enter an estimate which might require six or seven figures to show it, as the entry of hypothetical figures in an administration report is objectionable.

V.—IMPORTS AND EXPORTS OF FOREST PRODUCE.

231. In North Thána imports of forest produce are insignificant and comprise merely a small quantity of Moulmein teak required for the better class

of buildings, while exports comprise nearly the whole of the forest produce exploited annually, only a small quantity of timber and firewood being consumed locally. In South Thána about 75 per cent. of the produce is annually exported and imports are practically nil.

232. In West Khándesh the duty on foreign timber has again fallen considerably this year, and a glance at the figures given below for the last five years will show that there has been a constant decline in the revenue realized under this heading :—

	Rs.
1887-88...	16,065
1888-89...	18,307
1889-90...	15,051
1890-91...	13,854
1891-92...	9,374

233. The Divisional Forest Officer considers that the falling off is due partly to the fact of the Native States at last awakening to the reality that forests are not inexhaustible, and to their instituting closures in consequence; this is not to be regretted in the interests of the country at large. If the markets of West Khándesh were not glutted by the immature timber of Native States, there would be no difficulty in working the Khándesh forests to greater profit. This year imports consisted of timber, fuel and bamboos only, which found a ready sale in West and East Khándesh. The exports of the district consist, for the main part, of "Rosha oil," (grass-oil) which goes to Bombay, and from there the best sort is exported to Europe. A little teak is exported from Khándesh down the Tapti river to the markets in the Baroda State.

234. In East Khándesh the import trade of timber, firewood, charcoal and bamboos declined slightly during a portion of the year, owing to the forests in foreign territory having again been closed against teak and tiwas exploitation; and consequently the amount of import duty collected was Rs. 14,176 against Rs. 14,625 in the preceding year.

235. The following statement shows a comparison of the quantity of different descriptions of dutiable material imported into this division during the year under report and the one preceding it :—

Loads.		1890-91.				1891-92.			
		Teak, &c., Timber.	Firewood.	Charcoal.	Bamboos.	Teak, &c., Timber.	Firewood.	Charcoal.	Bamboos.
Cart	No.	3,444	9,838	44	875	3,628	7,739	42	1,375
Head.. ...	"	100	...	648	3,242	530	5	238	1,865
Bullock ...	"	6,426	...	1,287	21,026	5,340	...	920	19,642
Buffalo ...	"	3	...	2	5	...	...	...	13
Donkey ...	"	51	3	...	...	29	...	4	...

CHAPTER V.

FINANCIAL RESULTS.

236. The following statement shows the financial results of the year under report, as compared with those of the preceding year :—

Year.	Receipts.	Expenditure.			Net Revenue.
		A. Conservancy and Works.	B.—Establishments.	Total.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1890-91	12,57,501 15 3	2,47,857 10 7	4,87,846 15 8	7,35,704 10 3	5,21,797 5 0
1891-92	13,62,427 10 11	2,32,321 2 4	4,85,072 14 3	7,17,394 0 7	6,45,033 10 4
Increase ..	1,04,925 11 8	.....	. .	.....	1,23,236 5 4
Decrease ..	.....	15,536 8 3	2,774 1 5	18,310 9 8	.. .

237. The revenue realized during 1890-91 was up to then the highest on record produced by the forests of the Northern Circle, but the actual collections of the year of the present report have considerably surpassed that total, for they show a net revenue of Rs. 6,45,033 against Rs. 5,21,797 in the year preceding, and thus the financial prosperity of the Circle has been more than maintained.

238. The distribution of receipts among the several divisions of the Circle, as compared with the collections of the preceding year, is exhibited in the following statement:—

No.	Division.	1890-91.			1891-92.			Increase.			Decrease.		
		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1	Direction	.....			3	8	0	3	8	0	.....		
2	North Thána ...	3,05,473	6	3	3,05,430	8	11	.....			42	13	4
3	South Thána ...	1,53,716	2	8	1,27,438	8	1	.....			26,277	10	7
4	East Khándesh ...	1,17,333	7	6	1,50,811	4	2	33,477	12	8	.....		
5	West Khándesh ...	1,64,872	7	3	2,02,943	3	5	38,070	12	2	.....		
6	Násik	90,998	3	2	1,22,513	6	10	31,515	3	8	.....		
7	Ahmednagar ...	55,412	12	1	57,410	12	10	1,998	0	9	.....		
8	Poona	99,197	15	3	95,189	1	2	.....			4,008	14	1
9	Sátára	70,664	3	6	88,641	12	10	17,977	9	4	.....		
10	Sholápur	21,613	4	4	30,640	12	7	9,027	8	3	.....		
11	Surat	1,11,419	15	0	1,04,299	4	4	.....			7,120	10	8
12	Panch Maháls ...	66,799	4	3	77,102	15	9	10,303	11	6	.....		
13	Working Plans ...	0	14	0	2	8	0	1	10	0	.....		
	Total ...	12,57,501	15	3	13,62,427	10	11	1,42,375	12	4	37,450	0	8

239. North Thána has practically returned the same amount of revenue as it did last year. The decrease of Rs. 26,277 against South Thána is due to—

(*a*) the cessation of sales to the Tánsa dam and duct contractors of timber, &c., which they required for their works, and which in former years, when the works were in progress, produced large sums of revenue;

(*b*) the loss of the Karjat and Khálápur ranges which have been transferred to the Kolába Collectorate of the Southern Circle, whereby the revenue of these two ranges, which was included in the figures for 1890-91 of the Northern Circle, and amounted then to Rs. 15,946, has been transferred and credited to the Southern Circle; and

(*c*) the sales of coupes not having realised as high a sum as was anticipated, the prices being low generally.

240. In addition to this, a sum of Rs. 3,454 remained outstanding at the close of the year, owing to the failure on the part of a contractor to work up to his agreement. All these causes assisted towards decreasing the revenue of this division during the year.

241. The increase of Rs. 33,477 over the actuals of past year against the East Khándesh Division is mostly due to the increasing demand for grass and grazing, which, with the introduction of the new grazing rules, carefully and closely supervised, produced excellent results. The receipts from this source only exceeded the collections of the year preceding by Rs. 31,505. In the West Khándesh Division, likewise, the receipts have gone up by a large sum of Rs. 38,070; the successful sales of timber and fuel, as also the augmented receipts from grass and grazing, have contributed to this result. All the firewood that was on hand from last year in this division was also sold during the year, there being a large demand for it for the use of steam cotton mills, which are annually increasing in number, and are to be found now near almost every railway station as well as at large towns in the district.

242. The Násik Division likewise represents an increase of Rs. 31,515, mainly to be found under the heads II*a* and II*d*. The former exhibits Rs. 16,672 in excess of the past year's revenue, owing to more standing timber in Málki numbers in Peint and Dindori Ranges having been sold for exploitation by contractors than was anticipated, while the excess of Rs. 10,958 under the latter is due to the closer supervision of grazing arrangements under the new grazing

rules. Receipts under II*e* have also contributed Rs. 1,151 towards this increase, as hirdas, which were collected on the share system, and the proceeds of which are credited to this sub-head, have commanded higher rates this year than last.

243. The increase of Rs. 998 in the Ahmednagar division is also ascribed to the new system of grazing having been worked under careful supervision.

244. The divisions of Poona and Surat show small decreases of Rs. 4,008 and Rs. 7,120 respectively, in comparison with the actuals of the past year; in the former the decrease is to be found under II*d*, owing to larger areas of valuable kurans (forest reserves) having been placed at the disposal of the Commissariat Department, free of charge, than during 1890-91; while in the Surat division the falling off is due to the failure on the part of the contractor of green teak contract to pay in the full amount of his purchase money into the treasury before the close of the year.

245. In all the other divisions of the Northern Circle, the collections of the year are in excess of those of the year preceding. In the Sátára division the increase of Rs. 17,977 is due to a larger quantity of timber and fuel having been disposed of departmentally than was anticipated, and to better prices having ruled the market in respect of hirdas, the fruit of terminalia chebula, collected departmentally. Revenue from grass and grazing has also contributed Rs. 5,640 towards the increase. The Sholápur division, in like manner, exhibits an excess of Rs. 9,027, mainly through better realizations under firewood, I and II, and through better prices obtained at auction sales for grass and grazing.

246. In the Panch Maháls division Rs. 10,303 are in excess of the actuals of the past year, and this increase is due to keener competition at auction sales of standing teak, with the realization of better prices. The recent introduction of certain restrictions on indiscriminate cutting in Báriya, and the influence of the new railway on the district generally, have led to a brisker demand for timber and other forest produce from the State forests.

247. The expenditure under A Conservancy and Works on the other hand, amounting to Rs. 2,32,321, is less than the actuals of the past year by Rs. 15,536, and its distribution among the several divisions of the Northern Circle, as compared with that of the year preceding, is shown in the statement given below :—

Number.	Division.	1890-91.	1891-92.	Increase.	Decrease.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Direction	.....	567 4 0	567 4 0	.....
2	North Thána	14,938 7 7	22,428 10 5	7,490 2 10	.....
3	South Thána	37,983 0 11	28,531 2 11	.....	9,451 14 0
4	East Khándesh	11,487 8 8	16,578 3 5	5,090 10 9	.....
5	West Khándesh	22,919 8 11	22,997 8 4	77 15 5	.....
6	Násik	10,618 9 6	15,946 8 5	5,327 14 11	.....
7	Ahmednagar	14,254 7 8	13,314 9 6	.....	939 14 2
8	Poona	44,851 1 11	37,584 5 0	.....	7,266 12 11
9	Sátára	16,658 15 10	18,275 11 1	1,616 11 3	.....
10	Sholápur	5,638 13 11	6,710 11 4	1,071 13 5	.....
11	Surat	48,295 9 2	37,931 6 3	.....	10,364 2 11
12	Panch Maháls	3,591 15 10	4,507 15 2	915 15 4	.....
13	Working Plans ...	16,619 6 8	6,947 2 6	.....	9,672 4 2
	Total ...	2,47,857 10 7	2,32,321 2 4	22,158 7 11	37,695 0 2

248. The increase of Rs. 567 against Direction is due to the transfer of this amount from B. III. *f*. to A. VI. *c*. Provision for the purchase of a tent for the office of the Conservator was made under B. III. *f*., but according to the new classification of accounts, this charge was debited to A. VI. *c*., where no provision existed, and hence the increase.

249. The increase of Rs. 7,490 against North Thána is due to expenses incurred in departmental fellings, none of which were undertaken in the previous year, and to larger expenditure on demarcation, including expenses of the Forest Settlement Officer, and protection from fire; while the decrease of Rs. 9,451 in South Thána is due to the transfer of two ranges, Karjat and Khálápur, from the Northern Circle, to the Southern Circle, and to less expenditure

in the Sháhápur range, where large sums of money were expended during the preceding year in payment of compensation for lands acquired for forests upon the catchment of the Tánsa lake.

250. The principal items which have increased the expenditure of the East Khándesh division are to be found under A. I. *b*, A. II. and A. VIII. *b*. The higher expenditure under A. I. *b* is due to the clearing of disforested lands in the Chopdá táluka as ordered by Government in their Resolution No. 3563, dated 25th May 1891, in the Revenue Department; that under A. II. is in proportion to the large increase under II. *d*. of receipts, whereby larger payments had to be made to village officers in remuneration for collecting from villagers revenue for grass and grazing. Under A. VIII. *b* a sum of Rs. 4,7 7 was spent for acquiring occupied lands for forests by the Forest Settlement Officer; the expenditure under this subordinate heading during the preceding year had amounted to Rs. 1,703 only. The increase of Rs. 77 against West Khándesh is inconsiderable and calls for no special remarks.

251. Násik represents an excess of Rs. 5,327 over the figures of past year, and this is due to the increased expenditure under A. VIII. *a*, on the erection of special forest boundary-marks, as this work was pushed on with vigor in all the ranges of the division. Large payments of percentages to village officers, for collecting grass revenue consequent to increased receipts from grass and grazing have also, to some extent, augmented the expenditure in this division.

252. On the other hand, the divisions of Ahmednagar and Poona show a decrease of Rs. 939 and Rs. 7,266 respectively, the former due to a smaller outlay on materials for wire-fencing during the year than in the year preceding; while the latter to the debit of a smaller amount on account of the charges on forest surveys than in the year before, and to the abandonment of departmental working under I. *b*. "Firewood" standing in the coupes was sold to contractors for cutting and removal, thereby avoiding departmental expenditure on its account.

253. The increases of Rs. 1,616 and Rs. 1,071 in the Sátára and Sholápur divisions are due to the larger cuttings of firewood in the former, and to the debit of forest survey charges in the latter. The decrease of Rs. 10,364, on the other hand, in the Surat division, is due to there being no teak fellings in the Lower Dángs, and to the quantity of teak timber carted to the coast being much smaller in comparison with the operations of the preceding year. The small increase of Rs. 915 in the Panch Maháls division is ascribed to large payments of remuneration to village officers under II, and to the payment of compensation, Rs. 673, by the Forest Settlement Officer, while no such payment was made in the year preceding. The decrease of Rs. 9,672 against the Working Plans division is entirely due to the transfer of the cost of pay and travelling allowances of the Divisional Forest Officer, Working Plans, and his office establishments from A. VIII. *c*. to B. I. *b* and *d* and II. *b* and *d*, respectively, while in the year preceding the whole of this cost appeared under A. VIII. *c*.

254. The expenditure under B. Establishments shows a decrease of Rs. 2,774, in comparison with the actuals of the year preceding, and calls for no special explanations, as fluctuations in pay and allowances of officers account for such minor differences. It may, at the same time, be urged that payments to officers of other provinces, which are made in Bombay and which have no connection whatsoever with the expenditure of the Northern Circle, have always increased the expenditure under this head, thereby curtailing the surplus revenue of the Circle. This year Rs. 1,240 have been so debited against Direction.

255. The gross receipts of the forests of the Northern Circle have increased from Rs. 12,57,501-15-3 to Rs. 13,62,427-10-11, at the same time the total expenditure has decreased from Rs. 7,35,701-10-3 to Rs. 7,17,394-0-7, and the net revenue has gone up from Rs. 5,21,799-5-0 to Rs. 6,45,033 10-4. These results have been obtained by no reckless sales of timber and other forest produce; the augmentation of the productive powers of the forests has been as carefully safeguarded as it was possible for the administration to do so; all

fellings have been strictly improvement, to remove the mature, the decayed and the too thickly crowding, so as to give space to promising trees to develop and to make room for a better generation. Revenue has not been the main object of forest management; to serve agriculture by maintaining the integrity of forests upon the higher levels of the country, and by meeting as far as it was possible to do so all reasonable demands of local supply, have been the effort and endeavour of Forest Officers; while at the same time a careful control of expenditure and the realization of a legitimate income from the forests have been studied, concurrent with the augmentation of the capital value of the forests.

CHAPTER VI.

GENERAL REMARKS.

256. At the commencement of the year the Conservator's camp was in Poona, having come from the Thána districts during the Easter vacation; from thence it went by the Southern Marátha Railway to the Karád range in the Sátára District; and encamping at Ond the Conservator visited the teak and other forests of the range, as well as the coupes of the year about Mhasoli, climbing to the top of the highest peak 3,200 feet above sea level, and he went to the very promising plantation at Chachargaon on the bank of the Koyana river which has been made by forest guards of the beat without any expenditure of Government money, and which contains an advanced growth of teak and other trees. Thunder storms of considerable severity with heavy down-pours of rain occurred almost daily from the 13th to the 17th. The office clerks and heavy camp were sent round by the road *viâ* Karád to Pátan, while the Conservator with a flying camp carried on coolies' heads marched to Yelgaon at the head of the valley; and from there ascended the cross range of hills which forms the divide between the Koyana river drainage on the north and the Wárna river on the south, with a view to prospect for a possible line of road to open out the moist forests upon the crest of eastern slopes of the Sahyádris between the frontiers of the Kolhápur State and the Mala ghát; and at the same time to inspect these forests which contain a wealth of Hirda trees, and to see "the kumri allotments on the Sátára ghát." From Yelgaon to Bamburwadi of Gud is a stiff climb of 1,000 feet, and from there right up to the Mala ghát a distance of about 40 miles. The country on the top of the hill range is fairly level, presenting "no great engineering difficulties to the construction of a road." There are forest reserves on the plateau, as well as upon the upper drainage slopes of the valleys on either side. To the 27th of April the Conservator was engaged in inspecting the forests at the head waters of the Wárna river, camp being moved almost daily, and considerable distances up and down lofty and steep hills being walked daily; these ever-green forests have improved greatly during the last 7 or 8 years; and the contrast presented between the country they cover, protect and enrich on the one side, and the country of the Ratnágiri district on the western slopes of the Sahyádris, where the forests have been completely shaved, from the vertex to the foot of the western ghát, and on to the sea board, is very striking; and it affords over-whelming testimony to the vital importance in the interests of the country and people of forest conservancy and of a forest department.

257. The Divisional Forest Officer, Working Plans, Mr. Fry, joined the Conservator's camp at the Mala ghát on the 27th April; and on the 30th the two camps were carried down the hills to Helwak at the head of the Kumbhárli ghát on the Karád and Chiplun cart road, the forests of Patharpunj, Dokhavné, Vaghra and Govara being inspected by the way, and likewise the kumri allotments which are worked on a rotation system, under which kumri must perforce die out if confined to its present sites.

258. After inspecting the forests at the head of the Kumbhárli ghát, and the junglewood rafters which had been brought down from the Dhankal forests to the cart road for sale to cartmen returning with empty carts to the open country, east of the Krishna river, the Conservator marched with a reduced camp up the Koyana valley to Mahábleshvar, which place was reached on the 14th. The office camp was sent round by cart road, by way of Sátára to Mahá-

bleshvar. Along this upper section of the Koyana valley from Helwank north, which has never been travelled over by carts, tents, &c., had to be carried by coolies. Daily inspections of the forests, including those of Rasati, Sirsingi, Taloshi, Pali and Maldeo at the head of the Tivra pass, upon the drainage slopes overhanging the Koyana valley, were made, which entailed considerable hill-climbing and walking great distances from before sunrise to midday. There is a very dense and strong growth of bamboos on the tops and upper slopes of all the hills, intermixed with ever-green timber trees of very fair size, but kumri cultivation runs up the steep sides of the mountains to varying heights up to 500 feet from the bottom of the valley, and is denuding very completely the slopes upon which it is practised, all vegetation being completely shaved off, and the soil which rested upon the slopes is washed down into the bed of the Koyana river; if then the forests upon the higher slopes are not preserved, there will be dangerous floods, for the mountain sides are very steep and the rainfall is very heavy and other disastrous consequences will follow. The Conservator walked up to Kas from Shembdi, and inspected the forests upon the catchment of the reservoir, which was constructed for the water-supply of the city and cantonments of Sátára, to which the water is carried by pipes, a distance of many miles; it was noticed that a depth of 7 feet of water only was registered at the out-let. The Conservator walked also to the Met-Indoli forests and up to the top of Waseota fort on the very edge of the gháts; the forests on the lower slopes to half way up are splendid, almost primeval in appearance, for they contain many trees of really grand proportions, and seedlings of all ages and kinds abound, but the cost of exploitation of timber would at present be very great. Selection felling would probably be the only safe plan of working these forests, for the sides of the mountain are very steep, and the rainfall is very heavy. From the top of Waseota fort, the view of the Ratnágiri country, 3,700 feet down below with the hills entirely divested of woods spreading out in interminable complexity, brown and parched, and trending down towards the sea, with the smoke of multitudineous ráb fires rising up from them in all directions to the sky, was a distressful sight to a Forest Officer; the Koyna valley in contrast with the upper portions of its side-walls clothed with green in Reserved Forest, and with the forest-clad steep land-marks of Makrangad or the saddle-back, and the bold outlines of the Mahábleshvar range covered all over with timber, suggests a land of agricultural prosperity. From the 14th to the 27th May, the Conservator was encamped at Mahábleshwar, from whence he proceeded into Poona, his head-quarters station for the monsoon.

259. Leaving Poona in November, after having made a flying visit to Dhulia, the Conservator marched through a part of the Haveli range into the Sirur range of Poona district, and through the Párner, Sangamner and Kopargaon ranges of the Ahmednagar district, by way of the Niphád and Násik rangés, to Násik, by Christmas; Reserved Forests covering the sides of the low hills, bábul forests on the banks of rivers, with their coupes under exploitation, and their compartments closed for reproduction, were visited daily in every direction. The Divisional Forest Officer of Ahmednagar joined the Conservator in his division, and travelled with him a part of the way; and the Collector of the district was met at Párner, when the Conservator conferred with him on forest matters.

260. After Christmas leaving Násik, the Conservator marched through the Dindori and Point ranges with Mr. Betham, the Divisional Forest Officer; and through the Dharampur State to Párdi in the Surat division, where Mr. Madan, the Divisional Forest Officer, met him; the Goema, Velvunch, Parnera, &c., Reserved Forests were inspected, and the timber in the Vagrech depôt was examined. From Surat the camp went by railway to Godhra in the Panch Maháls, where forests and forest operations were inspected, and the Conservator was in camp with the Collector and Divisional Forest Officer for some time, examining forests, and works, and discussing the forest question. After visiting the forests round Chámpáner and Páwágad, the Conservator marched with the Political Agent to the Nerbudda at Chándod, and from thence he proceeded, the Forest Officer of the State Mr. W. G. Clabby accompanying him, through the forest country of the Rájpipla State to the Mándvi táluka of the Surat district. A large reservation of forest areas with a better protection of forest growth is

imperative in the Rájpipla State in the interests of agriculture, as well as of other interests which are dependent upon the maintenance of forest growth upon the hilly forest lands, the water-sheds and drainage slopes of a rough and hilly country; the destruction of trees in this State in that portion seen by the Conservator is awful.

261. Mr. R. H. Madan, Divisional Forest Officer of Surat, rejoined the Conservator in the Mándvi range, and forests and works were inspected, and then the Conservator proceeded with his camp to the Thána districts, to the Máhim range, wherein forests and coupes under exploitation were visited in company with the Divisional Forest Officer, North Thána, Mr. Millett; and on the 31st March camp was in the Bassein Range of the North Thána division.

262. Mr. Millett, the Divisional Forest Officer, North Thána, has fully maintained his character of an energetic, zealous and capable Forest Officer by administering one of the most difficult divisions in the Presidency, with conspicuous ability, to the entire satisfaction of his Collector and the approval of his Conservator. Of his sub-division officers Mr. Millett commends Mr. Robinson for having throughout the year worked well, both in inspection and office work, having given satisfaction, and having been of great service to the Divisional Forest Officer. Mr. Baptista, Sub-Assistant Conservator, is reported to have been energetic, but he suffered much from sickness, and he was also absent for a time: the work suffered in consequence in his sub-division; but Mr. Baptista's contumacious habit of writing in official correspondence gave trouble and created work. The Collector of Thána, Mr. Sinclair, has recorded that Mr. Millett's management of the division has been very satisfactory and that he is indebted to that officer "for much of the success which has attended the forest administration of Thána of late."

263. Mr. L. Osmaston, who has been in charge of South Thána, is a conscientious and very hard-working officer, and although young in the service, to be selected for such an important administrative position, still having qualified by passing the vernacular and departmental examinations, the Conservator recommended him for the appointment of Divisional Forest Officer, and he has proved a great success, fully justifying his preferment. The Collector has written that he "has much pleasure in recording his satisfaction with the gazetted officers of the division, and his personal and separate opinion that they have, during and since the year under report, considerably improved its administration." Mr. F. D. Fisher, a new trained officer, who arrived in the country at the end of December, was posted to the South Thána division as an Assistant, and proved himself during his short stay there to be energetic and full of interest in his work. Mr. J. H. Clabby is also reported to have worked well: and Mr. A. N. Master, L.C.E., a newly appointed sub-division officer, who had no time to prove his capacity before the year ended, has entered into his new profession with good promise.

264. Mr. F. R. Desái, Deputy Conservator of Forests, First Grade, a Nancy-trained forest officer, has been in charge of the East Khándesh division throughout the year, and has done excellent work; and Mr. Silcock, I.C.S, the Collector of the district, who has had considerable experience of forest conservancy, and of the want of it, when doing duty as a Forest Settlement Officer in the Násik and Sholápur districts, in forwarding the administration report of the East Khándesh forests, has recorded that:—

"Mr. Desai has submitted a very interesting and intelligent account of the year's working, and his report shows satisfactory progress in forest conservancy.

"The revenue from grass and grazing has increased very considerably during the year, being Rs. 85,049 as against Rs. 53,521 in the preceding year, the chief increase being due, as noted above, to fee grazing. In ordinary forest produce—timber, firewood, &c.—there has been a slight decrease, but the receipts from all sources during the year show an increase of Rs. 33,569 over those of the preceding year, which is very satisfactory. The expenditure has also increased, as was natural, by some Rs. 6,110, but the net revenue has risen from Rs. 62,680 in 1890-91 to Rs. 90,139, a marked increase, and which reflects credit on the management of Mr. Desái. With such a large net revenue it should be possible now to make some substantial addition to the Protective Establishment, and thus render less frequent the occurrence of fires, and the consequent destruction of valuable young trees. The

expenditure is only 40 per cent. of the revenue, and out of the handsome surplus available, there should be no difficulty in augmenting the permanent staff.

"On the whole, the report is a very satisfactory one except in the one point, the number of cattle which have had to be impounded, but as few or no complaints have been received from the owners of the cattle, it may be presumed they were well aware of what they were doing, and it may be hoped that this year's experience will act as a warning, and that in the report for 1892-93 a substantial decrease under this head will be shown, at least as regards the open forest."

265. Mr. R. S. Fagan, Deputy Conservator, was in charge of the West Khándesh division for the first three months of the year, and Mr. Desái held it for the next four and a half months, when Mr. E. G. Oliver, Assistant Conservator of Forests, First Grade, was appointed to the charge. This officer did not know the vernacular of the district, nor had he ever before been in charge of a forest division, but he very soon acquired a knowledge of the language, and quickly mastered the intricacies of the management, and has done very well indeed, as will be seen from his Collector's notes, which read as under :—

"The report is a very satisfactory one, so far as revenue is concerned, but it is disappointing to find that there has been no decrease in the ravages caused by fire.

"Expenditure has increased slightly, but was due mainly, it appears, to the Forest Settlement Office, so that with no increased expenditure on Conservancy or Establishment, the gross revenue has risen from Rs. 1,68,236 in 1890-91 to Rs. 2,01,900 during the year under report, which is quite a record for the division, as Mr. Oliver notes, and reflects credit on himself and his subordinates. With a net revenue of over one lákh, it ought to be possible to substantially increase the protective establishment. For the large area under reservation in this division a force of only 219 round and beat guards is absurdly inadequate, and it is quite impossible to enforce adequate protection without a considerable increase. Government possesses a valuable property in these reserves, and it is worth while taking care of them, and this cannot be properly done with the present insufficient staff."

266. Mr. Oliver reports that his sub-division officer, Mr. Ganesh Sakhárám Hingé, carried out the work of auctions in Nawápur and Nizámpur very successfully, and is a very hard-working and energetic officer; and Mr. Fagan likewise gives this sub-division officer a high character for work.

267. Mr. W. G. Betham has been Divisional Forest Officer of Násik, and the administration has been carried on smoothly and efficiently by him, commanding the approval of his Collector, Mr. Porteous, and of the Conservator also. Mr. Betham reports that his sub-division officer, Mr. Wallinger, has worked exceedingly well, and was of great use in the special duty of demarcating forest boundaries by special marks in the Peint táluka. Mr. Winter, I.C.S., who had succeeded as Collector of Násik, in forwarding his Divisional Forest Officer's report remarked :—

"This district forest report ought to be an interesting record of the working and improvement of a magnificent State property, and it should be a cardinal principle that all the moneys levied in the district, and credited to the Forest Department should, after paying the working expenses and a fair percentage of the Conservator's and other controlling establishments, be spent in the district from a forest point of view."

268. Mr. A. D. Wilkins, Deputy Conservator of Forests, has held charge of the Ahmednagar division throughout the year, and has performed his duties, as usual, to the entire satisfaction of his Collector, and of the Conservator of the Circle; he has been active, zealous and hard-working. The Collector of Ahmednagar notes the following upon Mr. Wilkins' annual report :—

"The Divisional Forest Officer is to be congratulated on being able to show a fair surplus of receipts over expenditure, which, as he points out, has been due chiefly to increased collection on account of grazing fees, and to less expenditure on account of wire-fencing."

269. Mr. R. C. Wroughton, Deputy Conservator of Forests, was Divisional Forest Officer of Poona during the year, except for a break of about three months at the end of the hot weather and the first half of the rains, when he was absent on privilege leave, and Mr. Gleadow, Deputy Conservator, acted for him. Mr. Wroughton has administered the Poona division with care, intelligence and discretion: and reports that his sub-division forest officer, Mr. Gaunde, has worked to his entire satisfaction.

270. Mr. Frank Gleadow, Deputy Conservator of Forests, who discharged the duties of Divisional Forest Officer, Poona, during Mr. Wroughton's absence

on short leave, was then transferred to the Southern Circle, until the close of the year; but he conducted the examination in forestry of the L. C. E. graduates of the Bombay University in the cold weather.

271. Mr. Christopher Greatheed, Deputy Conservator of Forests, Third Grade, had charge of the Sátára division up to the 24th June 1891, when he was transferred to the Southern Circle; and Mr. G. D. Pánse, Bombay C. S., held interim charge until the 4th June following, upon which date Mr. R. S. Fagan, Deputy Conservator, Fourth Grade, arrived from West Khándesh and took over the Sátára division, and remained in charge up to the end of the year: upon his administration report the Collector of Sátára has remarked:—

"The district has been under Mr. Fagan for three-fourth of the year in question, and during that period he has travelled over the whole district, and made himself well acquainted with it.

"I consider that in Mr. Fagan Government have a Forest Officer on whom great reliance can be placed. He is kindly disposed to the rayats, keenly alive to the interests of his forest, and indefatigable in work. It has been a pleasure to me to have him as my Forest Officer."

272. Mr. Fagan does not speak favorably of his sub-division officer Mr. Lakshman Dáji Joshi, who has not, seemingly, worked to his satisfaction.

273. Mr. Samuel Hornidge, A.M.I.C.E., has been Divisional Forest Officer of Sholápur throughout the year, and has managed the district with commendable zeal and industry; the charge of the Akalkot forests, which have been under the Sholápur division for several years, was made over to the Rája of that State on the 25th November 1891, when the Rája was installed in the government of his own country by the Commissioner, Central Division, under orders of Government.

274. In forwarding the Surat Divisional Forest Officer's administration report the Collector of Surat remarks:—

"In the Mándvi táluka, where the great bulk of the Reserved Forest of the Surat district lies, the department has worked without friction. Mr Weir remarks that he found the people fairly well supplied with firewood and with grazing. The forests in Bulsár, Chikhli and Párdi tálukas are not of importance.

"In the more populous tálukas, Chorási. Olpád, Jalálpur and Bulsár, there is a crying want of wood for fuel. People use up their farm-yard manure for this purpose, not because they prefer it, but because wood is too scarce and expensive. The demand for land is such that there are but few even isolated fields left which are adopted for ordinary fuel reserves. The undersigned is instituting a systematic enquiry as to what sort of land Government still have on their hands in these tálukas, with a view to seeing what can be made of them. If the experiment of growing casuarina on the sand banks of Tithal is successful, it is probable that it may be largely extended."

And in transmitting the same the Political Agent, Khándesh, states:—

"It is gratifying to find that the department is gradually enlisting the sympathies of the villagers in the matter of fire protection. This is a matter of great importance in a country like the Dángs where the people must be left so much to themselves.

"Apparently the people are satisfied with the manner in which the Forest Department is exploiting the timber, as no complaints have been received."

275. Mr. Rustomji Hormusji Madan, L.C.E., has been Divisional Forest Officer throughout the year, and has worked extremely well despite repeated attacks of malarious fever. During the rains he caused some rafts of timber to be floated down the Ambiká river from Waghai in the Dángs, a distance of about 60 miles, in order to test the capability of the Ambiká for timber-rafting; the results were encouraging. And during the travelling season Mr. Madan, personally made a detailed survey of the river-bed in order to ascertain the location and extent of rocky obstructions within the channel, the removal of which would clear the water-way for timber-rafting; the data obtained will serve for the preparation of a plan and estimate of cost for clearing the channel, which will result in large savings in the conveyance of timber from the Dángs forests to the coast markets and the depôt at Wagreh: some rocks at a rapid near Waghai were blasted away experimentally at a small expenditure, and trees and brushwood growing in the river-bed were cut down and removed. Mr. Madan likewise selected and obtained lands for a timber depôt at Wagreh, at which timber floated

down the Ambiká and Káveri rivers can be landed directly. Mr. Madan displayed commendable energy in floating the timber felled during the season in the Mándvi range down the Tápti river to Fulpáda near Surat, at a very short notice, when it was found that the timber-dealers had combined to defeat the auction sales in the temporary sale depôts within the limits of the range: Mr. Madan reports that his sub-division forest officer, Mr. Krishnáji Bábáji Phadké, who was appointed late in the season, worked well, and was very useful in supervising timber operations in the Upper Dángs.

276. Mr. H. W. Keys, Deputy Conservator of Forests, Fourth Grade, was Divisional Forest Officer of the Panch Maháls during the year, excepting three months from 12th August to 11th November, when he was absent on privilege leave, and Mr. W. A. Wallinger acted in his stead. Mr. Keys has commanded the approval of both his Collector and the Conservator by the satisfactory way in which he has managed his district; and his Collector, Mr. Ommanney, I.C.S., has recorded upon the year's administration that:—

"The financial results show a satisfactory increase. It is probable that the improved sales are due in some measure to greater watchfulness and strictness in dealing with the material on waste and occupied lands.

"The Collector has again to express approval of the activity and care, which Mr. Keys has devoted to his work."

277. Mr. T. B. Fry has been Divisional Forest Officer of Working Plans during the whole of the year, and has been employed in the Poona, Sátára, Nasik and Thána districts; his establishments have during the year marked out in detail and mapped 443 compartments to serve as coupes, which represent a total area of 17,991 acres to be under exploitation; and in addition to this other compartments, which are not to become coupes at once, have been demarcated. The Conservator has been generally satisfied with Mr. Fry's work.

278. The several Divisional Forest Officers in the Northern Circle have, it will be seen from the foregoing remarks, earned the approval of their respective Collectors to whom they stand in the position of Forest Assistant, by their devotion to, and their intelligent and satisfactory performance of, their duties; and at the same time they have, one and all, and their Sub-Assistant Conservators also, co-operated heartily and loyally with the Conservator of the Circle in carrying out the at-all-times difficult work of forest administration; and they deserve his sincere thanks.

279. Several of the subordinate officers have been specially mentioned by their respective Divisional Forest Officers, for having worked honestly and industriously to promote the forest interests of the State; and as they are all personally known to the Conservator having joined the service under his appointment, and having served all their service under his observation, and as their duties are very trying, and as their position is an extremely difficult one, the Conservator has much pleasure in recording their names in this history as approved servants:—

V. D. P. Rebeiro, L.C.E.

Shaik Abbas Shaik Alli Patrik.

Hasanalli Mahmadalli.

Ganesh Ramchandra Sámant.

Náráyan Rájárám Vadwatharkar.

Sadáshiv Pándurang Limaye.

Abdul Rasul Khájábaksh.

Váman Gopál Tumne.

Rámchandra Rávji Bodwadkar.

Kasam Aga Mirza Aga.

Sitárám Hari Vaze.

Dinkar Náráyan Dámle.

Hari Anant Bhadbhade.

Vishnu Mahádev Tilak.

Báláji Dhonddeo Dhekne.

Ganesh Rámchandra Athavle.

Govind Rámchandra Takle.

Keshav Pándurang Kavthekar.

Harilál Chandraprasád Desái.

280. The discipline of the Circle is looked after very closely by the Divisional Forest Officers as will be seen from the black list of the year.

North Thána Division—Round guard Shaik Mahmad dismissed for general misconduct and dishonesty. Forest guard Lakshman Bábáji dismissed for being convicted of causing grievous hurt. Náráyan Rághu tried, convicted and sentenced to six months' hard labour for embezzling Government money. 19 round and 57 beat guards were otherwise punished.

South Thána Division.—Seven forest guards were dismissed for various offences.

East Khándesh Division.—One round guard, 2 depôt officers and 20 beat guards were dismissed for misconduct and leaving their posts without leave.

West Khándesh Division.—Twenty-eight round and beat guards were dismissed for misconduct and deserting their posts.

Sátára Division.—One range forest officer was reduced and transferred. Four round guards were dismissed for corrupt practices, one of whom was prosecuted and convicted under Section 409 of the Indian Penal Code, and sentenced to one year's rigorous imprisonment; and seven beat guards were dismissed for corrupt practices, prolonged absence from their posts without leave, &c.

Surat Division.—One forest guard was prosecuted, convicted and sentenced to three months' rigorous imprisonment for extortion.

281. The year 1891-92 has been an extremely unhealthy one in the forests as the following list of casualties will show:—

No.	Division.	Deaths.
1	North Thána...	5
2	East Khándesh	2
3	West Khándesh	8
4	Násik	8
5	Ahmednagar	2
6	Sátára	3
7	Surat	7
8	Panch Maháls	6

282. Influenza prevailed very severely among the Bhils and forest tribes more particularly; it is reported that in the Dángs alone 2,000 persons died from its visitation out of a population of below 33,000 souls; Mahomed Ismáil, range forest officer, Upper Dángs, succumbed to it. In the Panch Maháls the department lost the services of Mr. Dámodhar Moreshwar, ranger, Rs. 60 Grade, and range forest officer of Godhra, an honest, hard-working and excellent officer, who died under jungle fever. One of the forest guards in the Ahmednagar division died of hydrophobia from the bite of a mad dog.

283. The office establishments worked well, as the annual report of the Accountant General exhibits; a few names are especially deserving of mention, *viz.*, Messrs. Keshav Ganesh Vaidya, Mahádev Náráyan Gokhale, Krishnáji Venkatesh Lohokare in the Conservator's office; and Messrs. Shivrám Bhikáji Rangnekar, Trimbak Bhikáji Laváte, Tukárám Vithoba Sonár, Dámodar Tukárám Salsingikar, Bálkrishna Gopal Kher, Annáji Gopál Mujumdár, Trimbak Covind Mahájan, Shankar Rámchandra Sapre, Báji Rámchandra Bápat and Venkatesh Hari Shikhare in the divisional forest offices.

284. The divisional forest offices and records of Poona, Ahmednagar, Sátára, East Khándesh, North Thána, West Khándesh, South Thána, Panch Maháls, Surat, Násik and Working Plans were examined within their respective juirsdictions during the year by the Conservator, who found no cause for

complaint. All the range forest offices and the accounts and records of depôt forest officers and round guards were examined and reported upon during the year by the Divisional and sub-division officers; while the offices of the latter were examined by their immediate superiors.

285. The Forest Classes at the College of Science, Poona, contained 19 students on the rolls at the close of the year. The Conservator of Forests, Northern Circle, sent 5 candidates, the Conservator, Southern Circle, sent 4, and the Conservator, Sind, sent 2, to join the junior class during the year. At the final examination held in September 1891, 4 candidates appeared for and passed the examination. The Forest Classes at the College of Science have every prospect of becoming a success in the future when the projected re-organization of the subordinate staff of the Forest Department will have come into effect, for it is in contemplation to increase the number of professionally educated forest subordinates, and to demand from them a high standard of qualification; and the Forest Classes in the College of Science will supply all the trained subordinates required for the forest services of the Bombay Presidency, especially as one of the European trained forest officers of the Presidency is to be appointed a full-time Professor of Forestry in the College.

286. The Conservator is bound to acknowledge that he has received the greatest consideration and support from Mr. J. K. Spence, I.C.S., Commissioner, Northern Division, and from Mr. G. B. Reid, I.C.S., Commissioner, Central Division, under whose orders he has been serving during the year. The several Collectors of the different forest divisions in the Circle have also, one and all, taken great interest in forest conservancy, and have taken an active part in the management of the forests of their districts, for which they are responsible, and at the same time they have given cordial assistance to the Forest Department: perfect harmony and kindly feeling have pervaded all official dealings between the Conservator and the Collectors and their Assistants, and also between the Revenue and Forest Departments in the districts generally.

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,

Conservator of Forests, N. C.

FORM No. 49.

Forest Department, Bombay, Northern Circle.

Area of Reserved Forests, 1891-92.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1891. Acres.	Area on 1st April 1891. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1892. Acres.	Area on 31st March 1892. Equivalent in square miles.	Number and date of Notification of addition or transfer.	Remarks.
				Sq. m. ac				Sq. m. ac.		
North Thána ...	Thána		238,039	371 599	(a) 23,900	(b) 2,329	259,610	405 410	(a) Nos. 7,187 / 19-10-91, 7,389C / 27-10-91. (b) No. 8,630 / 14-12-91.	
South Thána ...			208,417	325 417	*155	40,967	167,605	261 565		*Rectification of area.
East Khándesh ...	Khándesh ...		506,539	791 299	(c) 17	(d) 181	506,375	791 135	(c) No. 1950 / 22-3-92. (d) No. 4634 / 8-7-91.	
West Khándesh ...			699,505	1,092 625	(e) 6,270	...	705,775	1,102 495	(e) Nos. 1631 & 1634A / 7-3-92 1950 / 22-3-92.	
Násik	Násik		763,186	1,192 306	(f) 55,377	(g) 64	818,499	1,278 579	(f) No. 3189A / 9-5-91. (g) Nos. 5810 / 25-8-91, 6816 / 3-10-91, 231 / 13-1-92.	
Ahmednagar ..	Ahmednagar ...		532,272	831 432	(h) 1,394	...	533,666	833 546	(h) Nos. 4559 / 6-7-91 7346 / 26-10-91.	
Poona	Poona		475,757	743 237	† (i) 74	(j) 89	475,742	743 222	(i) Nos. 8498A / 9-12-91, 3198 / 9-5-91. (j) Nos. 4514 / 3-7-91, 3589 / 26-5-91.	†Out of this 14 acres represent rectification of area.
Sátára	Sátára		439,107	686 67	‡ (k) 3,806	(l) 4,948	437,965	684 205	(k) No.s 3685 / 29-5-91. 4558 / 8-7-91. (l) Nos. 5280 / 5-8-91. 6818 / 3-10-91.	‡Out of this 2 acres represent rectification of area.
Sholápur	Sholápur ...		177,232	276 592	(m) 391	...	177,623	277 343	(m) Nos. 1952 / 22-3-92. 1630 / 3-3-91.	
Surat	Surat		43,665	68 145	(n) 8	...	43,673	68 153	(n) No. 1922 / 19-3-92.	
Dangs			434,240	678 320	...	...	434,240	678 320		
Kaira	Kaira		39	0 39	...	...	39	0 39		
Panch Mahále ...	Panch Mahále ...		126,658	197 578	(o) 3	(p) 265	126,396	197 316	(o) Nos. 4221 / 22-6-91, 1949 / 22 3-92, (p) Nos. 3105 / 6-5-91, 2000 / 23-3-92.	
Ahmedabad ...	Ahmedabad ...		21,562	33 442	...	§1	21,561	33 441		§Rectification of area.
		Total ...	46,66,218	7,290 618	91,395	48,844	47,08,769	7,357 289		

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Dated Poona, 31st October 1892.

FORM No. 49 A.

Forest Department, Bombay, Northern Circle.

Area of Protected Forests, 1891-92.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1891.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1892.		Number and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
				Sq. m. ac.				Sq. m. ac.		
North Thána ...	Thána... ...		211,102	329 542	...	(a) 35,768	175,334	273 614	(a) Nos. 3765 / 3-6-91, 7389 A / 27-10-91.	
South Thána ...			214,805	335 405	...	* 5,113	209,692	327 412	.....	* Out of this, 155 acres represent rectification of area.
East Khándesh ...	Khándesh ...		11,425	17 545	...	(b) 11,425	...	...	(b) No. 5856 / 28-8-91.	
West Khándesh ...			117,884	184 124	...	(c) 4,169	113,715	177 435	(c) No. 5856 / 28-8-91.	
Násik	Násik		...	...	...	...	...	...		
Ahmednagar ...	Ahmednagar ...		7,337	11 297	...	...	7,337	11 297		
Poona	Poona		...	...	...	...	...	...		
Sátára	Sátára		648	1 8	...	...	648	1 8		
Sholápur	Sholápur ...		...	...	...	...	...	...		
Surat	Surat		...	...	...	...	...	...		
Dángs			...	...	...	...	...	...		
Kaira	Kaira		...	...	...	...	...	...		
Panch Maháls ...	Panch Maháls ...		73,410	114 450	...	73,410	...	...	Nos. 4438 & 4438 A / 30-6-91.	
Ahmedabad ...	Ahmedabad ...		...	...	...	...	...	...		
		Total ...	636,611	994 451	...	129,885	506,726	791 486		

A. T. SHUTTLEWORTH,
Conservator of Forests, N. C.

Poona, 31st October 1892.

FORM No. 50.

FORM No. 50.

Forest Department, Bombay, Northern Circle.

Register of Breaches of Forest Rules during 1891-92.

Forest Division.		Cases pending from 1890-91.	New Cases of the Year.					Total Cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Thána	A	9	2	74	4	78	158	167	140	226	18	33	158	259	9
	B	...	...	96	...	...	96	96	96	212	...	...	96	212	...
	C	...	...	224	...	...	224	...	...	...	...	...	...	...	...
	Total	9	2	394	4	78	478	263	236	438	18	33	254	471	9
South Thána	A	7	6	98	3	16	123	130	83	245	30	66	113	311	17
	B	...	...	254	...	...	254	254	254	362	...	...	254	362	...
	C	...	...	295	...	...	295	...	...	...	...	...	...	...	...
	Total	7	6	647	3	16	672	384	337	607	30	66	367	673	17
East Khándesh	A	4	9	11	19	10	49	53	36	82	8	12	44	94	9
	B	...	9	217	653	691	1,570	1,570	1,570	4,290	...	...	1,570	4,290	...
	C	...	2	4	4	7	17	...	...	...	...	...	...	...	...
	Total	4	20	232	676	708	1,636	1,623	1,606	4,372	8	12	1,614	4,384	9
West Khándesh	A	9	20	10	9	33	72	81	58	135	18	46	76	181	5
	B	...	11	326	725	186	1,248	1,248	1,248	3,833	...	...	1,248	3,833	...
	C	...	135	71	13	3	225	...	...	...	...	...	...	...	...
	Total	9	166	410	747	222	1,545	1,329	1,306	3,968	18	46	1,324	4,014	5
Násik	A	20	4	31	54	27	116	136	100	290	18	42	118	332	18
	B	214	94	545	691	93	1,423	1,637	1,213	2,788	259	588	1,472	3,376	165
	C	...	70	139	25	11	245	...	...	...	...	...	...	...	...
	Total	234	168	715	770	131	1,784	1,773	1,313	3,078	277	630	1,590	3,708	183

Ahmednagar	A	...	1	26	112	41	180	180	130	327	36	138	166	465	14
	B	534	...	220	2,727	29	2,976	3,510	2,941	7,969	...	...	2,941	7,969	569
	C	...	7	97	58	7	169	...	...	...	...	...	...	...	...
	Total	534	8	343	2,897	77	3,325	3,690	3,071	8,296	36	138	3,107	8,434	583
Poona	A	3	1	61	133	52	247	250	183	491	58	224	241	715	9
	B	...	18	428	1,589	26	2,061	2,061	2,059	4,721	2	...	2,061	4,721	...
	C	...	29	42	7	...	78	...	...	...	...	...	...	...	...
	Total	3	48	531	1,729	78	2,386	2,311	2,242	5,212	60	224	2,302	5,436	9
Sátára	A	4	4	38	52	24	118	122	78	290	27	113	105	403	17
	B	14	6	460	607	100	1,173	1,187	923	2,299	...	...	923	2,299	264
	C	...	8	109	41	6	164	...	...	...	...	...	...	...	...
	Total	18	18	607	700	130	1,455	1,309	1,001	2,589	27	113	1,028	2,702	281
Sholápur	A	5	...	4	161	19	184	189	121	290	55	202	176	492	13
	B	454	...	...	1,582	...	1,582	2,036	1,608	4,703	...	...	1,608	4,703	428
	C	...	2	6	...	...	8	...	...	...	...	...	...	...	...
	Total	459	2	10	1,743	19	1,774	2,225	1,729	4,993	55	202	1,784	5,195	441
Surat	A	...	...	3	...	...	3	3	2	3	1	1	3	4	...
	B	...	...	15	2	...	17	17	17	29	...	...	17	29	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	...	...	18	2	...	20	20	19	32	1	1	20	33	...
Panch Maháls	A	...	...	62	...	2	64	64	57	110	5	12	62	122	2
	B	...	...	131	2	2	135	135	132	169	3	3	135	172	...
	C	...	...	68	...	...	68	...	...	...	...	...	...	...	...
	Total	...	...	261	2	4	267	199	189	279	8	15	197	294	2
Grand Total	A	61	47	418	547	302	1,314	1,375	988	2,489	274	889	1,262	3,378	113
	B	1,216	138	2,692	8,578	1,127	12,535	13,751	12,061	31,375	264	591	12,325	31,966	1,426
	C	...	253	1,058	148	34	1,493	...	...	...	...	...	...	...	...

N. B.—A means cases taken into Court. B means cases disposed of under Section 67 of Indian Forest Act, 1878. C means undetected cases.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 31st October 1892.

FORM No. 51.

Forest Department, Bombay, Northern Circle.

Area of Forest Tracts protected from Fire during the Dry Season, 1892, to accompany Report for 1891-92.

Division.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 15th June 1891.	During the Dry Season of 1892.			Cost during the Season.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
			Acres.	Acres.	Acres.	Acres.	Rs.	
North Thána ...	Sálsetto	1878-79 ...	13,845	15,629	301	15,328	112	
	Bassein...	,, ...	43,368	54,621	1,386	53,235	285	
	Máhim	,, ...	113,723	127,345	3,262	124,083	582	
	Dáhánu	,, ...	147,129	161,127	2,448	158,679	1,225	
	Umbargaon	,, ...						
	Váda	,, ...	77,861	77,676	1,216	76,460	160	
	Total ...		395,926	436,398	8,613	427,785	2,364	
South Thána ...	Bhiwndi	1878-79 ...	15,945	47,917	1,130	46,787	149	
	Sháhápur	,, ...	112,019	154,678	5,188	148,574	227	
	Khardi	,, ...			916		113	
	Mokháda	,, ...	45,923	49,423	1,032	48,391	32	
	Kalyán...	,, ...	31,473	35,473	1,184	34,289	117	
	Murbád	,, ...	89,990	90,289	970	89,319	63	
	Karjat	,, ...	44,447	.....	...	...	...	
	Khálápur							
	Total ...		339,797	377,780	10,420	367,360	701	
East Khándesh...	Amalner	1878-79 ...	19,725	19,950	690	19,260	...	
	Páchora	,, ...	27,738	29,433	...	29,433	...	
	Bhadgaon	,, ...						
	Bhusával	,, ...	60,524	65,992	1,927	64,065	3	
	Edalabad	,, ...						
	Chálisgaon	,, ...	58,212	60,017	599	59,418	10	
	Chopda...	,, ...	107,210	107,680	1,844	105,836	125	
	Erandol	,, ...	16,215	16,675	265	16,410	2	
	Jalgaon.	,, ...	20,552	21,440	1,690	19,750	...	
	Jámner...	,, ...	41,227	41,592	875	40,717	12	
	Ráver	,, ...	147,421	148,017	25,876	122,141	24	
	Sávda	,, ...						
	Yával	,, ...						
	Total ...		498,824	510,796	33,766	477,030	176	
West Khándesh .	Dhulia	1878-79 ...	131,092	131,192	1,008	130,184	7	
	Nandurbár	,, ...	83,069	125,754	94,719	31,035	10	
	Navápur	,, ...					2	
	Pimpalner	,, ...	122,945	230,363	65,000	165,363	9	
	Nizámpur	,, ...					35	
	Shgháda	,, ...	10,676	85,676	80,000	5,676	9	
	Shirpur...	,, ...	50,000	206,064	178,905	27,159	71	
	Sindkheda	,, ...	24,883	24,916	4	24,912	10	
	Taloda	,, ...	58,984	284,660	219,676	64,984	19	
	Akráni	,, ...					54	
	Total ...		481,649	1,088,625	639,312	449,313	226	
Násik	Násik	1878-79 ...	43,766	43,970	1,908	42,062	20	
	Igatpuri	,, ...	53,560	53,976	694	53,282	14	
	Sinnar	,, ...	35,311	35,371	41	35,330	...	
	Dindori...	,, ...	13	55,377	1,481	53,896	...	
	Niphád...	,, ...	3,444	3,446	1	3,445	...	
	Chándor	,, ...	24,599	24,898	32	24,866	11	
	Yeola	,, ...	31,455	31,496	2	31,494	7	
	Bágláu	,, ...	120,821	124,167	4,496	119,671	20	
	Kálvan...	,, ...	104,544	109,364	2,179	107,185	15	
	Peint	,, ...	106,283	107,218	107	107,111	...	
	Málegaon	,, ...	107,340	121,905	216	121,689	23	
	Nándgaon	,, ...	122,010	107,311	164	107,147	18	
	Total ...		758,146	818,499	11,321	807,178	128	

FORM No. 51—*continued.*

Division.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 15th June 1891.	During the Dry Season of 1892. Area attempted to be protected.	Failure.	Actually protected.	Cost during the Season.	Remarks.
			Acres.	Acres.	Acres.	Acres.	Rs.	
Ahmednagar ...	Nagar	1878-79 ...	40,463	40,463	...	40,463	...	
	Párner	,, ...	64,094	64,094	102	63,992	...	
	Shrígonda	,, ...	44,517	44,557	...	44,557	...	
	Karjat	,, ...	50,152	50,152	...	50,152	...	
	Jámkhed	,, ...	40,029	40,053	7	40,046	...	
	Shevgaon	,, ...	26,502	26,599	2	26,597	...	
	Nevása	,, ...	19,458	19,723	4	19,719	...	
	Ráhuri	,, ...	48,887	48,888	...	48,888	...	
	Kopargaon	,, ...	9,088	9,087	3	9,084	...	
	Sangamner	,, ...	86,577	86,665	...	86,665	...	
	Akola	,, ...	110,644	111,243	256	110,987	...	
	Total ...		540,411	541,524	374	541,150	...	
Poona	Junnar	1878-79 ...	61,764	61,897	1,284	60,613	...	
	Indápur	,, ...	62,467	62,745	...	62,745	...	
	Khed	,, ...	55,530	56,754	1,045	55,709	...	
	Ambegaon	,, ...	44,114	44,151	23	44,128	...	
	Sirúr	,, ...	20,777	20,753	...	20,753	...	
	Purandhar	,, ...	25,636	25,827	128	25,699	...	
	Bhimthadi	,, ...	53,269	52,258	...	52,258	...	
	Bárámati	,, ...	19,379	19,379	...	19,379	...	
	Haveli	,, ...	49,866	50,073	208	49,865	11	
	Mulshi	,, ...	28,085	28,218	248	27,970	...	
	Mával	,, ...	54,049	54,590	869	53,721	...	
	Total ...		474,936	476,645	3,805	472,840	11	
Sátára	Máhábaleshvar ...	1878-79 ...	41,285	41,394	24	41,370	...	
	Mán	,, ...	56,099	56,270	...	56,270	...	
	Khatáv	,, ...	16,503	20,177	1	20,176	...	
	Karád	,, ...	35,986	35,973	2	35,971	...	
	Wái	,, ...	22,713	24,892	...	24,892	...	
	Koregaon	,, ...	28,773	28,772	...	28,772	...	
	Sátára	,, ...	21,314	22,263	135	22,128	...	
	Tásgaon	,, ...	20,008	20,005	...	20,005	...	
	Khandála	,, ...	14,190	14,189	...	14,189	...	
	Jávli	,, ...	50,643	50,822	105	50,717	...	
	Khánápur	,, ...	32,182	32,084	1	32,083	...	
	Válva	,, ...	} 29,507	28,408	{ 20	} 28,186	...	
	Shirála	,, ...			202			
	Pátan	,, ...	67,602	63,435	503	62,932	...	
	Total ...		436,805	438,684	993	437,691	...	
Sholápur	Sholápur	1878-79 ...	38,590	38,542	...	38,542	...	
	Bársi	,, ...	8,286	8,536	133	8,403	...	
	Mádha	,, ...	31,326	31,422	5	31,417	...	
	Karmála	,, ...	50,996	51,134	84	51,050	...	
	Pandharpur	,, ...	6,094	6,109	...	6,109	...	
	Sángola	,, ...	20,473	20,528	...	20,528	...	
	Málsiras	,, ...	21,432	21,445	...	21,445	...	
	Total ...		177,206	177,716	222	177,494	...	
Surat	Mándvi	1878-79 ...	39,508	40,839	329	40,510	9	
	Dángs	,, ...	2,000	434,240	432,240	2,000	24	
	Chikhli	,, ...	805	825	14	811	10	
	Bulsár and Párdi ...	,, ...	1,551	1,559	...	1,559	...	
	Bardoli	,, ...	450	450	...	450	...	
	Total ...		44,314	477,913	432,583	45,330	43	
Panch Maháls ...	Godhra	1878-79 ...	83,586	75,936	5,498	70,438	...	
	Kálol	,, ...	21,763	22,263	1,435	20,828	2	
	Halol	,, ...	27,620	28,500	1,895	26,605	...	
	Dohad	,, ...	45,860	46,538	1,150	45,388	...	
	Jhálod	,, ...	24,397	26,872	155	26,717	...	
	Total ...		203,226	200,109	10,133	189,976	2	
	Grand Total ...		4,346,240	5,544,689	1,151,542	4,393,147	3,651	

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 31st October 1892.

FORM No. 52.

Forest Department, Bombay, Northern Circle.

Area of Plantations, 1891-92.

Division.	Name of Plantation	Area in acres. On 1st April 1891.	Area in acres. Added during the year.	Area in acres. Excluded during the year.	Area in acres. Area on 31st March 1892.	Receipts. Of the year.	Charges. Of the year.	Remarks.
	Regular Plantations.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
North Thána ...	Sálsette	107	10	...	117	...	3	
	Bassein	2	...	...	2	...	..	
	Máhim	1,880	...	...	1,880	...	33	
	Dáhánu	4	...	...	4	...	14	
	Váda	92	...	...	92	...	20	
	Umbargaon	130	...	...	130	...	136	
	Total ...	2,215	10	...	2,225	...	206	
South Thána ...	Bhiwndi	336	20	171	185	...	92	
	Mokháda	10	52	...	62	...	70	
	Sháhápur	39	45	...	84	...	219	
	Kalyán	5	68	...	73	...	177	
	Murbád	...	16	...	16	...	69	
	Khardi	...	24	...	24	..	162	
	Total ...	390	225	171	444	...	789	
East Khándesh ...	Nil	...	...	...	...	...	...	
West Khándesh ...	Akráni	...	...	...	...	...	...	
	Dhulia	15	...	...	15	...	490	
	Nizámpur	25	...	25	...	...	...	
	Pimpalner	2	...	...	2	...	47	
	Taloda	...	...	...	...	...	...	
	Total ...	42	...	25	17	...	537	
Násik	Nil	...	...	...	...	...	...	
Ahmednagar ...	Nagar Dongargan	142	...	...	142	...	190	
Poona	Junnar	...	66	...	66	...	10	
	Khed	...	2	...	2	...	...	
	Háveli	...	22	...	22	...	4	
	Bárámati	...	26	...	26	...	10	
	Bhimthadi	...	74	...	74	...	8	
	Indápur	...	179	...	179	...	10	
	Sirur	...	39	...	39	..	10	
	Total ...	...	408	...	408	...	52	
Sátára	Khatáv	286	1	...	287	...	8	
	Koregaon	242	6	...	248	...	20	
	Karád	281	1	...	282	...	23	
	Khandála	103	...	...	103	...	...	
	Válva	76	4	...	80	...	77	
	Sátára	73	2	...	75	...	70	
	Wái	245	...	...	245	...	...	
	Mán	158	2	...	160	...	51	
	Jávli	42	...	...	42	...	...	
	Mahábaleshvar	1,124	...	...	1,124	...	39	
	Tásgaon	302	...	...	302	...	...	
	Pátan...	167	1	...	168	...	34	
	Khánápur	69	...	...	69	...	...	
	Shirála	26	...	...	26	...	...	
	Total ...	3,194	17	...	3,211	...	322	
Sholápur	Nil	...	...	...	..	...	...	
Surat ...	Nil	...	...	...	...	...	...	
Panch Mahále ...	Kálol	103	119	...	222	...	129	
	Hálol	10	4	...	14	...	130	
	Total ...	113	123	...	236	...	259	
	Total, Regular Plantations...	6,096	783	196	6,683	...	2,355	

FORM No. 52—*continued.*

Division.	Name of Plantation.	Area in acres. On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 31st March 1892.	Receipts. Of the year.	Charges. Of the year.	Remarks
	Cultural Operations.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
North Thána	Sálsette	578	110	...	688	...	180	
	Bassein	3,123	1,148	...	4,271	...	10	
	Máhim	4,748	1,716	...	6,464	...	3	
	Dáhánu	4,538	1,897	...	6,435	...	4	
	Umbargaon	1,506	788	...	2,294	...	177	
	Váda	1,367	1,545	...	2,912	...	212	
	Total ...	15,860	7,204	...	23,064	..	586	
South Thána	Bhiwndi	751	22	...	773	...	...	
	Sháhápur	761	9	...	770	...	...	
	Khardi	416	19	...	435	...	...	
	Mokháda	337	17	...	354	...	...	
	Kalyán	1,274	39	...	1,313	...	...	
	Murbád	745	16	...	761	...	...	
	Total ...	4,284	122	...	4,406	..	...	
East Khándesh	Amalner	2,255	202	...	2,457	...	19	
	Bhadgaon	322	14	...	336	...	1	
	Bhusával	2,377	522	...	2,899	...	3	
	Chálisgaon	742	109	...	851	...	1	
	Chopda	717	172	...	889	...	7	
	Edalabad	942	509	...	1,451	...	...	
	Erandol	5,120	161	...	5,281	...	4	
	Jálgaon	823	156	...	979	...	26	
	Jámner	1,058	201	...	1,259	...	5	
	Páchora	65	30	...	95		...	
	Ráver...	387	210	...	597	...	5	
	Sávda...	516	508	...	1,024	...	2	
	Yával	525	226	...	751	...	2	
	Total ...	15,849	3,020	...	18,869	...	75	
West Khándesh	Akráni	211	28	...	239	...	...	
	Dhulia	4,248	26	...	4,274	...	...	
	Nandurbár	746	43	...	789	...	...	
	Navápur	1,410	...	...	1,410	...	...	
	Nizámpur	490	15	...	505	...	...	
	Pimpalner	1,435	28	...	1,463	...	...	
	Sháhída	3,410	67	...	3,477	...	...	
	Shirpur	1,748	23	..	1,771	...	...	
	Sindkheda	6,177	...	.	6,177	...	59	
	Taloda	1,055	35	..	1,090	...	9	
	Total ...	20,930	265	...	21,195	...	68	
Násik	Násik...	477	6	...	483	...	413	
	Igatpuri	415	1	...	416	...	50	
	Chándvad	791	...	45	746	...	64	
	Sinnar	294	201	...	495	...	93	
	Yeola	2,286	...	.	2,286	...	255	
	Niphád	498	26	80	444	...	54	
	Dindori	507	1	269	239	...	10	
	Málegaon	1,953	16	...	1,969	..	60	
	Nándgaon	359	242	...	601	...	102	
	Báglán	430	202	...	632	...	94	
	Kalvan	118	110	...	228	...	35	
	Peint...	60	60	...	120	...	6	
	Total ...	8,188	865	394	8,659	...	1,236	
Ahmednagar	Nagar	1,070	1,051	...	2,121	...	222	
	Párner	668	354	...	1,022	..	124	
	Shrigonda	1,531	833	...	2,364	...	401	
	Karjat	724	688	...	1,412	...	182	
	Jámkhed	2,052	396	...	2,448	...	30	
	Shevgaon	661	615	...	1,276	...	82	
	Nevása	290	543	...	833	...	87	
	Ráhuri	600	432	...	1,032	...	85	
	Kopargaon	727	489	...	1,216	...	148	
	Sangamner	2,064	2,572	...	4,636	...	329	
	Akola	711	783	...	1,494	...	144	
	Total ...	11,098	8,756	...	19,854	...	1,834	

FORM No. 52—*concluded.*

Division.	Name of Plantation.	Area in acres. On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 31st March 1892.	Receipts. Of the year.	Charges. Of the year.	Remarks.
		Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
Poona	Junnar	1,012	...	...	1,012	...	145	
	Indápur	3,645	...	...	3,645	...	141	
	Khed	6,188	...	...	6,188	...	11	
	Ambegaon	2,299	...	...	2,299	...	...	
	Sirúr	5,883	...	...	5,883	...	118	
	Purandhar	5,973	...	...	5,973	...	1	
	Bhimthadi	3,773	...	...	3,773	...	294	
	Bárámati	2,114	...	...	2,114	...	176	
	Haveli	1,485	...	...	1,485	...	706	
	Mulshi	849	...	...	849	...	...	
	Mával	1,119	...	...	1,119	...	...	
	Plantation by Forest Guards	5,597	1,187	...	6,784	...	...	
	Total ...	39,937	1,187	...	41,124	...	1,592	
Sátára	Mahábaleshvar	6,398	72	...	6,470	...	47	
	Shirála	720	21	...	741	...	41	
	Sátára	3,171	41	...	3,212	...	18	
	Mán	12,820	34	...	12,854	...	7	
	Válva	4,466	25	...	4,491	...	10	
	Khatáv	1,239	110	...	1,349	...	60	
	Karád	21,669	31	...	21,700	...	21	
	Tásgaon	1,349	25	...	1,374	...	25	
	Khánápur	5,752	9	...	5,761	...	13	
	Khandála	4,351	12	...	4,363	...	11	
	Pátan	6,173	24	...	6,197	...	19	
	Jávli	9,483	915	...	10,398	...	8	
	Wái	18,124	13	...	18,137	...	31	
	Koregaon	19,071	32	...	19,103	...	33	
	Total ...	114,786	1,364	...	116,150	...	344	
Sholápur ...	Sholápur	4,501	386	...	4,887	...	94	
	Bársi	2,817	49	...	2,866	...	4	
	Mádha	8,799	1,159	...	9,958	...	83	
	Pandharpur	3,626	1,002	...	4,628	...	80	
	Karmála	9,370	216	...	9,586	...	74	
	Sángola	7,025	971	...	7,996	...	43	
	Málsiras	23,292	6	...	23,298	...	58	
	Total ...	59,430	3,789	...	63,219	...	436	
Surat	Dángs	...	...	...	...	...	...	
	Chorási	...	...	...	...	...	...	
	Bulsár	181	5	...	186	...	16	
	Párdi	52	42	...	94	...	8	
	Chikhli	162	41	...	203	...	32	
	Mándvi	611	177	...	788	...	797	
	Total ..	1,006	265	...	1,271	...	853	
Panch Maháls ...	Godhra	246	82	...	328	...	...	
	Kálol	42	16	...	58	...	...	
	Hálol	59	28	...	87	...	...	
	Dohad	65	22	...	87	...	...	
	Jhálod	37	12	...	49	...	...	
	Total ...	449	160	...	609	...	...	
	Total, Cultural Operations..	291,817	26,997	394	318,420	...	7,024	
	Add—Total Regular Plantations	6,096	783	196	6,683	..	2,355	
	Grand Total ...	297,913	27,780	590	325,103	...	9,379	

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 31st October 1892.

FORM No. 54.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Outturn (in Cubic feet, solid) of Timber and Fuel during the year 1891-92 and Agency of Exploitation.

Division.	Timber in the rough; logs.					Timber the rough; poles.					Sawn or Squared Timber.					Miscellaneous.					Fuel.					Total Outturn.
	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
North Thána ...	...	...	...	...	...	10,839	970,950	...	...	981,789	...	...	...	...	...	...	Bamboos No. 246,887 Cart-loads ... 8,560	...	...	Bamboos No. 246,887 Cart-loads ... 8,560	79,602	1,204,388	...	...	1,283,990	Bamboos No. 246,887 Cart-loads ... 8,560 2,265,779
South Thána .	...	...	...	...	...	17,247	568,670	5,439	...	586,356	...	...	...	...	...	...	Bamboos No. 303,922 Head-loads ...1,843 Cart-loads ... 740	...	...	Bamboos No. 303,922 Head-loads... 1,843 Cart ,, ... 740	...	1,659,862	...	...	1,659,862	Bamboos No. 303,922 Head-loads ...1,843 Cart ,, ... 740 2,246,218
East Khándesh ...	...	213,000	...	...	213,000	19,532	..	...	...	19,532	...	...	...	...	...	...	Bamboos No 407,845	...	...	Bamboos No. 407,845	440,910	1,135,280	...	.	1,576,190	Bamboos No. 407,845 1,808,722
West Khándesh ..	11,003	...	...	...	11,003	66,997	...	...	...	66,997	...	...	...	...	...	67,812	Bamboos No. 171,782 212,750	1,300	...	Bamboos No. 171,782 252,862	385,562	167,900	...	...	553,462	Bamboos No. 17,1782 914,324
Násik	...	641,20[illegible]	1,114	...	642,376	26,802	...	...	...	26,802	...	...	...	...	...	...	Bamboos No. 196,203 Head-loads... 9,989	...	...	Bamboos No, 196,203 Head-loads ...9,989	227,984	90,568	...	33,100	351,652	Bamboos No. 196,203 Head-loads ...9,989 1,020,830
Ahmednagar ...	...	...	...	...	...	35,098	...	3,729	...	38,827	...	...	...	...	...	92	Bamboos No. 32,847 305	750	...	Bamboos No. 32,847 1,147	154,818	62,797	...	...	217,615	Bamboos 32,847 257,589
Poona	...	193,632	...	...	193,632	50,785	142	3,797	...	54,724	...	...	...	...	...	...	Bamboos No. 148,4[illegible]3	...	...	Bamboos 148,4[illegible]2	81,081	42,849	...	...	123,930	Bamboos No. 148,422 372,286
Sátára	...	...	...	...	...	20,041	2,230	...	...	22,271	...	...	...	...	...	...	Bamboos No. 14,675 Head-loads. . 1,968	...	...	Bamboos No. 14,675 Head-loads... 1,968	244,920	9,854	...	...	254,774	Bamboos No.14,675 Head-loads . 1,968 277,045
Sholápur	931	...	..	...	931	...	...	...	...	...	...	...	...	...	...	...	129	...	...	129	15,130	1,692	...	...	16,822	17,882
Surat	104,020	...	...	...	104,020	72,645	...	...	...	72,645	...	...	...	...	...	...	Bamboos No. 727,032	...	...	Bamboos No. 727,0[illegible]2	18,491	...	...	...	18,491	Bamboos No. 727,032 195,156
Panch Mahále ...	...	2,307	57,744	...	60,051	24,464	17,117	...	...	41,581	..	...	...	...	...	Bamboos No. 533 951	Bamboos No. 142,846 17,772 Cart-loads ... 99 Head ,, ... 4	1,316	...	Bamboos No. 143,378 20,039 Cart-loads ... 99 Head ,, ... 4	210,700	239,400	200	...	450,300	Bamboos No. 143,378 571,971 Cart-loads ... 99 Head ,, .. 4
Total ,..	115,954	2,050,201	58,858	...	1,425,013	344,450	1,554,109	12,965	..	1,911,524	...	...	...	...	..	68,855 Bamboos No. 533	231,956 Bamboos No. 2,392,462 Cart-loads... 9,399 Head ,, ... 13,804	3,366	...	304,177 Bamboos No. 2,392,993 Cart-loads ... 9,399 Head ,, ...13,804	1,359,198	4,614,590	200	33,100	6,507,088	Bamboos No. 2,392,993 Head-loads . 13,804 Cart ,, ... 9,399 9,947,308

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 55.

Forest Department, Bombay, Northern Circle.

Outturn of Minor Forest Produce.

Division.	Description of Produce.	Produce removed or utilised. By Government Agency. Quantity.	By Government Agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By Free Grants. Quantity.	By Free Grants. Value.	By Right-holders. Quantity.	By Right-holders. Value.	Total. Quantity.	Total. Value.
			Rs.		Rs.		Rs.		Rs.		Rs.
North Thána.	Myrobolans .. Khandis	70 3 0	1,770	....	..	..	..	..	..	70 3 0	1,770
	Apta and Tembhurni leaves ..	....	....	....	1,431	..	..	..	..	....	1,431
	Palas leaves	....	....	....	167	..	..	..	..	....	167
	Bel leaves	....	....	....	92	..	..	..	..	....	92
	Brab-tree leaves and fruits ..	....	....	....	1,858	..	..	..	..	....	1,858
	Chilhar bark	....	....	....	136	..	..	..	..	....	136
	Gum	....	....	....	322	..	..	..	..	....	322
	Bhorda fruits	....	....	....	52	..	..	..	..	....	52
	Plantain leaves	....	....	....	62	..	..	..	..	....	62
	Total ..	....	1,770	....	4,120	..	..	..	..	....	5,890
South Thána.	Hirda .. .. .. Khandis	143 7 0	4,250	....	..	..	..	..	..	143 7 0	4,250
	Apta and Tembhurni leaves ..	....	....	....	1,872	..	..	..	..	....	1,872
	Gum	....	....	....	50	..	..	..	..	....	50
	Karvi .. .. .. Cart-loads.	....	....	485	124	..	..	..	..	485	124
	Do. .. .. .. Head-loads.	....	....	314	11	..	..	..	..	314	11
	Thorns .. .. Cart-loads.	....	....	69	39	..	..	..	..	69	39
	Mowra flowers	....	....	....	64	..	..	..	..	....	64
	Dead palm brab-trees	....	....	6	5	..	..	..	..	6	5
	Earth, stone and kanker ..	....	....	..	88	..	..	..	..	....	88
	Cess on palm trees	....	....	50	6	..	..	..	..	50	6
	Rent of quarrying stones ..	....	....	....	8	..	..	..	..	....	8
	Total ..	....	4,250	....	2,267	..	..	..	..	....	6,517
East Khándesh.	Stone .. .. Cart-loads.	....	....	3,030	437	..	..	..	..	3,030	437
	Thorns .. .. do.	....	....	4,314	297	..	..	..	..	4,314	297
	Manure .. .. do.	....	....	271	82	..	..	..	..	271	82
	Earth .. .. do.	....	....	128	16	..	..	..	..	128	16
	Anjan leaves .. do.	....	....	531	133	..	..	..	..	531	133
	Do. .. Head loads.	....	....	376	12	..	..	..	..	376	12
	Rosha grass stills	....	....	6	120	..	..	..	..	6	120
	Miscellaneous	....	....	....	111	..	..	..	..	....	111
	Total ..	....	....	....	1,208	..	..	..	..	....	1,208
West Khándesh.	Rosha grass stills	....	....	141	6,777	..	..	..	..	141	6,777
	Reeds and Karvi .. Cart-loads.	....	....	935	123	..	..	..	..	935	123
	Thorns .. do.	....	....	1,094	66	..	..	..	..	1,094	66
	Stone .. .. do.	....	....	1,666	592	..	..	..	..	1,666	592
	Lime and Earth .. do.	....	....	1,182	148	..	..	..	..	1,182	148
	Manure .. .. do.	....	....	613	144	..	..	..	..	613	144
	Mango fruits	....	....	....	193	..	..	..	..	....	193
	Anjan leaves .. Cart-loads	....	....	25	6	..	..	..	..	25	6
	Total ..	....	....	....	8,049	..	..	..	..	....	8,049
Násik.	Karvi .. .. Head-loads	....	....	32,165	558	..	..	..	..	32,165	558
	Thorns .. .. Cubic feet	....	....	1,965	19	..	..	..	..	1,965	19
	Rab .. .. .. Head-loads.	....	....	6,655	109	..	..	..	..	6,655	109
	Hirda .. .. Khandis.	2	30	47	1,401	..	..	..	..	49	1,431
	Apta, Anjan and Tembhurni leaves	....	....	....	1,208	..	..	..	..	....	1,208
	Mango fruits	....	....	4,000	4	..	..	..	..	4,000	4
	Kirmáti Oman .. Head-loads.	....	....	333	11	..	..	..	..	333	11
	Tarwad	....	....	....	103	..	..	..	..	....	103
	Stone and lime-stone .. C. feet.	....	....	23,641	108	..	..	..	..	23,641	108
	Manure .. .. Cart-loads.	....	....	36	13	..	..	..	..	36	13
	Earth .. .. do.	....	....	....	..	86	3	..	..	86	3
	Rosha oil stills	....	....	64	739	..	..	..	..	64	739
	Sora and Catechu furnaces ..	....	....	11	46	..	..	..	..	11	46
	Total ..	....	30	....	4,319	..	3	..	..	....	4,352
Ahmednagar.	Hirda .. .. Khandis.	100	3,100	....	..	..	..	..	..	100	3,100
	Stone .. .. Cart-loads.	....	....	8,279	730	..	..	..	..	8,279	730
	Karvi .. .. Head-loads.	....	....	909	28	212	7	..	..	1,121	35
	Kharmati .. .. do.	....	....	1,199	19	37	1	..	..	1,236	20
	Babul pods	....	....	....	399	..	..	..	..	....	399
	Fruits	....	....	....	19	..	..	..	..	....	19
	Tarwad	....	....	....	164	..	..	..	..	....	164
	Miscellaneous	....	....	....	11	..	..	..	..	....	11
	Total .	....	3,100	....	1,370	..	8	..	..	....	4,478
Poona.	Hirda .. .. Khandis.	....	....	265 5 8	6,081	..	..	..	..	265 5 8	6,081
	Tarwad	....	....	....	570	..	..	..	..	....	570
	Shikakai	....	....	....	120	..	200	..	..	....	320
	Roofing material, Karvi, &c. .. .. Head-loads.	....	....	2,364	243	..	..	..	..	2,364	243
	Do. .. Cart-loads.			22						22	
	Stone, kunkar and earth .. .. Cart-loads.	....	....	669	215	..	2,878	..	..	669	3,093
	Mád trees	....	....	432	27	..	..	..	..	432	27
	Fruits, &c.	....	....	....	37	..	..	..	..	....	37
	Rab	....	....	....	..	..	550	..	..	....	550
	Total ..	....	....	....	7,293	..	3,628	..	..	....	10,921

FORM No. 55—*continued.*

Division.	Description of Produce.	Produce removed or utilised.									
		By Government Agency.		By purchasers.		By Free Grants.		By Right-holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.		Rs.		Rs.		Rs.
Satára.	Hirda .. .. Khandis.	741 10 13	19,410	....	..	..	..	..	..	741 10 13	19,410
	Shikakái	....	....	....	1,275	..	.	..	..	....	1,275
	Brushwood .. .. Cart-loads.	....	....	948	1,069	..	..	..	..	948	1,069
	Stones .. .. Do.	....	....	15,565	964	..	..	..	..	15,565	964
	Earth .. .. Do.	....	....	20	3	..	..	..	..	20	3
	Fruits	....	....	1,255	3	..	..	..	..	1,255	3
	Tarwad	....	....	....	22	..	..	..	..	....	22
	Aloe .. .. Cart-loads.	....	....	2	4	..	..	..	..	2	4
	Total ..	..	19,410	....	3,340	..	..	..	..	....	22,750
Sholápur.	Bábul bark .. .. Cubic feet.	11½	16	....	..	..	..	..	.	11½	16
	Tamarind, Mango and Kavat fruits	....	....	....	19	..	..	..	..	....	19
	Stone .. .. Cart-loads.	....	....	225	34	..	..	.	..	225	34
	Earth .. .. Do.	....	....	10	2	..	..	..	..	10	2
	Tarwad	....	....	....	456	..	..	..	..	....	456
	Gum	....	....	....	27	..	..	..	..	....	27
	Pods of Karanj trees	....	....	....	2	..	..	..	..	....	2
	Total ..	....	16	....	540	..	..	..	..	....	556
Surat.	Temru, Khakar and Aahindra leaves .. Bundles.	....	....	1,598,095	569	..	..	..	..	1,598,095	569
	Temru, Khakar and Aahindra leaves .. Maunds.			51						51	
	Temru, Khakar and Aahindra leaves .. Contract.			....						....	
	Honey .. .. .. Seers.	....	....	3,661	39	..	..	..	..	3,661	39
	Wax .. .. Do.	....	....	354	4	..	..	..	..	354	4
	Boru .. .. .. Cart-loads.	....	....	99	27	..	..	..	..	99	27
	Mhowra .. .. Maunds.	....	....	6,684	614	..	..	..	..	6,684	614
	Bamboo mats .. .. No.	....	....	3,259	322	..	..	..	..	3,259	322
	Tapping of date trees	....	....	1,299	149	..	..	..	..	1,299	149
	Do. palm trees . ..	....	....	250	63	..	..	..	..	250	63
	Rosha oil stills	....	....	5	80	..	..	..	..	5	80
	Mango fruits . Maunds.	....	....	2	3	..	..	..	..	2	3
	Miscellaneous	....	....	....	306	..	..	..	..	....	306
	Total ..	...	....	....	2,176	..	..	..	..	....	2,176
Panch Mahals.	Mhowra flowers	....	....	....	1,870	..	..	..	..	....	1,870
	Thorns .. .. Cart-loads.	....	....	21	7	..	..	..	..	21	7
	Kankar .. .. Do.	....	....	10	5	..	..	..	..	10	5
	Sand .. .. .. Cubic feet.	....	....	20,500	26	..	..	..	..	20,500	26
	Earth .. .. .. Yards.	....	....	10	1	..	..	..	..	10	1
	Seed .. .. .. Maunds.	457	457	....	..	..	..	..	..	457	457
	Miscellaneous	....	....	...	33	..	..	..	..	....	33
	Total ..	....	457	....	1,942	..	..	..	..	....	2,399

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 56.

Forest Department, Bombay, Northern Circle.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1891-92.

TIMBER.

Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.
Balance at the commencement of the year.				
North Thána . Jungle wood pieces ..	63	189	63	189
South Thána . Teak pieces ..	15,727	47,181	15,727	47,181
West Khándesh. Teak logs and rafters..	7,663	4,704	42,257	26,152
West Khándesh. Do. pieces ..	34,594	21,448		
Násik .. .. Teak rafters..	2,235	27,714	2,235	27,714
Ahmednagar . Do. ..	9	18	9	18
Sátára.. .. Jungle wood pieces ..	5,118	2,559	5,118	2,559
Surat.. .. Teak beams ..	170	595	911	1,204
Surat.. .. Do. pieces ..	80	150		
Surat.. .. Jungle wood pieces ..	561	459		
Panch Mahále. Teak rafters..	143	50	143	50
Total Balance ..	..	....	66,363	1,05,067
Received from the forests in Depôts.				
Teak logs and rafters	3,55,493	2,81,521		
Do. pieces	1,11,652	1,37,095		
Do. beams	4,608	16,128		
Junglewood pieces	9,215	24,989		
Sadada	6	72		
Khair	41	400		
Beo	3	59		
Sandalwood	1	38		
Kanti	23	119	4,81,042	4,60,421
Total ..	..	....	5,47,405	5,65,488

Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.
Sold locally.				
Teak logs and rafters	3,57,820	3,02,795		
Do. pieces	1,50,011	1,58,674		
Do. beams	3,000	10,500		
Junglewood pieces	10,276	19,361		
Sadada do.	6	72		
Khair do.	41	400		
Beo do.	3	59		
Sandalwood do.	1	38		
Kanti	23	119	5,21,181	4,92,018
Sold from Depôts.				
Junglewood pieces	46	700	46	700
Free grants.				
Teak logs and rafters	569	437	569	437
Used by the Department.				
Teak logs and rafters	560	200	560	200
Lost or written off.				
Teak logs and rafters	69	18	69	18
Balance at the close of the year.				
North Thána . Teak pieces ..	1,172	3,516	1,445	4,335
North Thána . Junglewood pieces.. ..	273	819		
South Thána.. Do. ..	2,000	6,027	2,009	6,027
West Khándesh. Teak pieces ..	8,184	4,092	8,184	4,092
Násik .. .. Teak logs and rafters ..	20	120	20	120
Ahmednagar . Do. ..	8	12	8	12
Sátára.. .. Do. ..	967	240	2,990	1,245
Sátára.. .. Junglewood pieces.. .	2,023	1,016		
Surat .. .. Teak logs and rafters ..	5,503	9,296	10,285	55,308
Surat .. .. Do. pieces .	2,674	39,516		
Surat .. .. Do. beams ..	1,778	6,223		
Surat .. .. Junglewood pieces.. ..	330	273		
Panch Mahále. Teak logs and rafters ..	27	880	39	956
Panch Mahále. Do. pieces ..	12	76		
Total Balance ..	..	....	24,980	72,115
Total ..	..	....	547,405	5,65,488

FIREWOOD.

Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.
Balance in hand at the commencement of the year.	Kh. m.		Kh. m.	
North Thána	266 0	3,325		
South Thána	5,904 0	73,800		
West Khándesh	..	2,47,416		
Násik	..	15,025		
Ahmednagar	..	1,489		
Sátára	890 27	40,392		
Sholápur	..	1,462¼	Kh. m. 7,060 27	3,35,859¼
Received from the forests in Depôts	16,130 0	18,59,198 4/11	16,130 0	18,59,198 4/11
Total, firewood ..	..	....	Kh. m. 23,210 27	22,45,058

Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.
Sold locally..	Kh. m. 18,651 0	20,34,555		
Sold from Depôts	292 27	18,905		
Free grants	..	57,443		
Lost or written off..	598 0	22,926	Kh. m. 19,541 27	21,33,829
Balance in hand at the close of the year.				
North Thána	3,667 0	45,837	3,667 0	45,837
South Thána	2 0	25	2 0	25
West Khándesh	..	20,226	....	20,226
Sátára	..	44,775	....	44,775
Sholápur	..	366	....	366
Total Balance ..	..	....	3,669 0	1,11,229
Total, firewood ..	..	....	23,210 27	22,45,058

FORM No. 56—*continued.*

Particulars.	Number or Quantity.	Cubic feet.	Total of each Head. Number or Quantity.	Total of each Head. Cubic feet.	Particulars.	Number or Quantity.	Cubic feet.	Total of each Head. Number or Quantity.	Total of each Head. Cubic feet.
					BAMBOOS.				
Balance at the commencement of the year.					*Sold locally.*				
Surat	628	.....	628	.....	Bamboos	628	.....	628	.....
					Balance at the close of the year.				
					Bamboos	...	.....	.....	.....
Total ...	...	.....	628	.....	Total ...	...	.....	628	.....
					OTHER MINOR PRODUCE.				
Balance at the commencement of the year.		K. m. lbs.		Kh. m. lbs.	*Sold locally.*				
South Thána . Seed	...	40 25 9	.....	40 25 9	Hirda	...	1,048 5 12	.....	1,048 5 12
Násik ... ... Hirda	...	0 13 20	.....	0 13 20	*Used by the Department.*				
Ahmednagar . do.	...	48 13 24	.....	.....	Hirda	...	0 15 23	.....	
Ahmednagar . Seed	...	22 22 16½	.....	71 8 12½	Seed	...	323 14 14	.....	334 2 9
					Lost or written off.				
					Hirda	...	95 16 7½	.....	95 16 7½
					Balance at the close of the year.				
Sátara... ... Do.	...	43 0 9	.....	.....	South Thána. Hirda	...	8 7 6	.....	
Sátara... ... Hirda	...	47 18 6½	.....	90 18 15½	South Thána. Seed	...	5 17 26	.....	13 25 4
Panch Mahále Seed	.	4 1 1	.....	4 1 1	Násik ... Do.	...	1 2 12	.....	1 2 12
					Ahmednagar. Hirda	...	44 1 20	.....	
					Ahmednagar. Seed	...	32 22 20	.....	76 24 12
Total Balance ...	...	.....	.....	207 11 2					
Received from the Forests in Depôts.					Sátára ... Do.	...	40 2 8	.....	
					Sátára ... Hirda	...	124 27 15	.....	165 1 23
Hirda	...	1,225 13 25	.....	1,225 13 25	Panch Mahále ... Seed	...	12 24 4	.....	12 24 4
Seed	...	304 21 ½	.....	304 21 ½					
					Total Balance ...	...	.....	.....	209 21 27
Total ...	.	.....	.....	1,737 17 27½	Total ...	...	.....	.....	1,737 17 27½

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 57.

Forest Department, Bombay, Northern Circle.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1891-92.

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
North Thána Division.			Rs.			Rs.			
Junglewood	63	189	5	1,445	4,335	120	...	...	
Firewood ... Khandis.	266	3,325	200	3,667	45,837½	1,800	...	...	
Total ...	.....	...	205	.....	...	1,920	1,715	...	
South Thána Division.									
Timber pieces	15,727	47,181		2,009	6,027	265	...	...	
Firewood ... Khandis.	5,904	73,800		2	25	2	...	...	
Hirda nuts	.....	...	2,200	K. m. lbs. 5 17 26	...	167	...	...	
Miscellaneous seeds	K. m. lbs. 40 24 9	...		K. m. lbs. 8 7 6	...	...	...	...	
Total ...	.....	...	2,200	.....	...	434	...	1,766	
East Khándesh Division.									
Miscellaneous seeds	.....	...	...	K. m. lbs. 35 14 16	...	...	...	...	
Total ...	.....	...	...	.....	...	...	...	...	
West Khándesh Division.									
Teak pieces	42,197	26,162	4,250	8,184	4,050	800	...	...	
Firewood	.....	247,416	4,700	.....	20,226	350	...	...	
Total ...	.....	...	8,950	.....	...	1,150	...	7,800	
Násik Division.									
Teak rafters	2,235	27,714	909	20	120	80	...	...	
Firewood	.....	*18,025	...	.....	...	...	...	...	* Valueless.
Hirda seed	K. m. lbs. 0 18 20	...	13	K. m. lbs. 1 2 12	...	22	...	...	
Total ...	.....	...	922	.....	..	102	...	820	
Ahmednagar Division.									
Teak rafters	9	18	1	8	12	3	...	...	
Firewood	.....	1,439	48	.....	...	...	...	...	
Hirda	K. m. lbs. *48 13 24	...	...	K. m. lbs. *44 1 20	...	...	...	...	* Dryage.
Miscellaneous seeds	K. m. lbs. 22 22 16½	...	...	K. m. lbs. 32 22 20½	...	...	...	...	
Total ...	.....	...	49	.....	..	3	...	46	
Poona Division.									
...	.....	...	...	.....	...	...	...	...	
Total ...	.....	...	...	.....	...	...	...	...	
Sátára Division.									
Teak pieces	.....	...	...	*967	249	186	...	...	* Out of these, 94 pieces to be written off.
Junglewood rafters	5,118	2,559	770	2,023	1,016	290	...	...	
Firewood ... Khandis.	K. m. lbs. 890 27 0	40,092	1,110	K. m. lbs. 156 9 23	10,100	267	...	...	
Do.	.....	...	...	.....	34,675	732	...	...	
Hirda	K. m. lbs. (1) 47 18 6½	...	...	(2) 11,414⅝ Pailies.	...	32	...	...	(1) Dryage. (2) The whole stock except 193 pális is on account of dryage.
Miscellaneous seeds	K. m. lbs. 43 0 9	...	...	K. m. lbs. 40 2 18	...	...	...	...	
Total ...	.....	...	1,880	.....	...	1,507	...	373	

FORM No. 57—*continued.*

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
Sholápur Division.			Rs.			Rs.			
Firewood	.....	1,462½	106	.....	366½	27	...	...	
Total ..	.....	...	106	.....	..	27	...	79	
Surat Division.									
Teak logs ... Khandis.	5,416	67,700	80,000	.....	38,717	40,000		...	
Teak pieces	245	855	233	8,082	16,591	4,000	...	...	
Junglewood pieces	444	1,332	200	330	990	100	...	...	
Teak disks	5	3	1	1	1	1	...	...	
Teak stumps	.....	...	...	621	1,863	100	...	...	
Total ...	.....	...	80,434	.....	..	44,201		36,233	
Panch Mahále Division.									
Teak rafters	143	50	7	39	950	5	...	...	
Miscellaneous seeds... ...	K. m. lbs. 4 1 ½	....	113	K. m. lbs. 12 24 ·2	...	360	...	...	
Total ...	.....	...	120	.....	...	365	245	...	
Grand Total ...	.....	...	94,866	.....	...	49,709	1,960	47,117	

Net difference against the year Rs 45,157.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 31st October 1892.

FORM No. 57A.

Forest Department, Bombay, Northern Circle.

Abstract showing the value of live and dead stock for the year 1891-92.

Description of live and dead stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
Direction.		Rs.		Rs.	Rs.	Rs.	
Office tent	1	432	1	432	...	...	
Ráuti	1	95	1	95	...	...	
Hill tent 14′×14′	...	...	1	541	...	...	
Tools, plant and office furniture ...	...	1,070	...	1,070	...	...	
Total ...	...	1,597	...	2,138	541	...	
North Thána Division.							
Parol bungalow	1	1,200	1	1,200	...	...	
Náka house at Mándvi	1	250	1	250	...	...	
Do. at Mánikpur	1	603	1	603	...	...	
Forest stations	38	570	38	570	...	...	
Do. Posts	82	840	82	840	...	...	
Office tent	*1	273	*1	273	...	...	* Worn out and useless.
Do.	1	433	1	433	...	...	
Small ráutis	2	188	2	188	...	...	
Great coats	226	1,359	226	1,359	...	...	
Tools, plant and office furniture ...	...	2,604	...	2,446	...	...	
Total ...	...	8,320	...	8,162	...	158	
South Thána Division.							
Office tent	1	433	1	433	...	...	
Small ráutis	2	186	2	186	...	...	
Great coats	263	1,713	†201	1,309	...	...	† 62 great coats, remained with the Range Forest Officers, Karjat and Khálápur, transferred to Southern Circle.
Tools, plant and office furniture ...	...	838	...	856	...	...	
Total ...	...	3,170	...	2,784	...	386	
East Khándesh Division.							
Office tent	1	248	1	248	...	...	
Great coats	192	1,254	192	1,254	...	...	
Tools, plant and office furniture ...	...	770	...	805	...	...	
Total ...	...	2,272	...	2,307	35	...	
West Khándesh Division.							
Office tent	1	387	1	387	...	...	
Cabul pál	1	126	1	126	...	...	
Great coats	219	1,428	219	1,428	...	...	
Tools, plant and office furniture ...	...	5,931	...	5,931	...	...	
Total ...	...	7,872	...	7,872	...	...	
Násik Division.							
Office tent	2	300	2	544	...	...	
Great coats	303	1,976	303	1,976	...	...	
Tools, plant and office furniture ...	...	258	...	258	...	...	
Total ...	...	2,534	...	2,778	244	...	

Description of live and dead stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
Ahmednagar Division.		Rs.		Rs.	Rs.	Rs.	
Hill tent 13′ × 13′	1	387	1	387	...	...	
Sleeping pál 12′ × 12′ double fly ...	1	246	...	...	...	...	
Office room, Range Forest Office, Karjat...	1	214	1	214	...	...	
Hirda depôt at Singanwádi	1	25	1	25	...	...	
Forest rest-houses	3	90	3	90	...	...	
Great coats	208	1,357	208	1,357	...	...	
Tools, plant and office-furniture ...	...	986	...	1,115	...	...	
Total ...	...	3,305	...	3,188	...	117	
Poona Division.							
Office tent	1	273	1	433	...	...	
Range Forest Officer's offices ...	5	7,752	5	7,752	...	...	
Great coats	313	2,040	315	2,054	...	...	
Tools, plant and office furniture ...	...	922	...	922	...	...	
Total ...	...	10,987	...	11,161	174	...	
Sátára Division.							
Bungalow at Malcolmpeth	1	700	1	700	...	...	
Pál with double fly	1	245	...	...	...	...	
Hill tent 13′ × 13′	...	...	1	433	...	...	
Cabul pál 7′ × 7′	...	...	1	111	...	...	
Great coats	246	1,606	246	1,606	...	...	
Tools, plant and office furniture ...	...	969	...	921	...	...	
Total ...	...	3,520	...	3,771	251	...	
Sholápur Division.							
Office tent	1	387	1	387	...	...	
Great coats	119	777	119	777	...	...	
Tools, plant and office furniture ...	...	231	...	231	...	...	
Total ...	...	1,395	...	1,395	...	...	
Surat Division.							
Office tent, 12 feet	1	246	1	246	...	...	
Do. 13′ × 13′	1	433	1	433	...	...	
Andhatri Bungalow	1	291	1	291	...	...	
Dhadhawada do.	1	80	1	80	...	...	
Tárápore do.	1	100	1	100	...	...	
Large Waghai do.	1	1,099	1	1,099	...	...	
Small do. do.	1		1				
Large Pimpri do.	1	499	1	499	...	...	
Do. Garvi do.	1	1,012	1	1,012	...	...	
Small do. do.	1	288	1	288	...	...	
Great coats	65	455	65	455	...	...	
Tools, plant and office furniture ...	...	1,837	...	1,837	...	...	
Total ...	...	6,340	...	6,340	...	...	

Description of live and dead stock,	On hand at commencement of the Year.		On hand at close of the Year.		Difference in Value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
Panch Mahâls Division.		Rs.		Rs.	Rs.	Rs.	
Rest houses and depôt	34	2,410	45	2,525	...	...	
Bungalow	1	8,200	1	8,200	...	...	
Office tent	1	433	1	433	...	...	
Great coats	110	717	110	717	...	...	
Tools, plant and office furniture ...	...	1,159	...	1,324	...	...	
Total ...	...	12,919	...	13,199	280	...	
Working Plans Division.							
Office tent	1	285	1	285	...	...	
Tools, plant and office furniture ...	...	1,103	...	1,103	...	...	
Total ...	...	1,388	...	1,388	...	...	

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 31st October 1892.

FORM No. 58.

FORM No. 58.

Forest Department, Bombay, Northern Circle.

Summary of Revenue and Expenditure of the different Divisions during the year 1891-92.

Budget Heads.	Direction.	North Thána.	South Thána.	East Khándesh.	West Khándesh.	Ahmednagar.	Násik.	Poona.	Sátára	Sholápur.	Surat.	Panch Mahále.	Working Plans.	Total for 1891-92.	Budget Estimate.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.															
I.—Timber and other Produce removed from the Forests by Government Agency—															
a. Timber	.....	2,174 11 6	2,531 8 9	10,448 7 9	48,985 4 5	7,977 0 0	3,102 12 2	26,129 8 6	13,618 0 9	90 7 3	48,136 1 1	4,197 3 0	.....	1,67,391 1 2	2,17,840 0 0
b. Firewood and charcoal	.....	415 7 9	1 11 6	14,222 9 0	11,014 6 0	755 5 0	3,794 11 6	1,796 4 0	4,229 9 9	1,293 6 3	500 8 0	3,718 5 0	.....	41,749 3 9	43,750 0 0
c. Bamboos	.....	.....	.....	.....	58 0 0	.....	.....	.....	.....	.....	.....	1 8 0	.....	59 8 0	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	3 11 0	0 8 6	.....	17 9 0	.....	.....	.....	21 12 6	.....
e. Grass and other minor produce .	.....	1,792 2 3	4,075 6 9	.....	1 4 0	3,100 0 0	30 8 0	.....	19,409 9 2	16 5 0	.....	.....	.....	28,425 4 2	27,900 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—															
a. Timber	.....	2,50,307 0 9	96,413 6 0	4,354 4 0	8,883 12 0	158 4 0	33,489 7 6	234 11 3	801 0 6	175 11 9	33,319 8 5	55,230 5 2	.....	4,83,366 7 4	4,99,130 0 0
b. Firewood and charcoal	.....	6,904 11 10	1,507 3 3	9,458 12 6	3,394 1 0	3,479 14 9	1,381 2 9	8,315 0 1	467 8 7	4,337 10 0	786 12 0	2,294 7 0	.....	42,327 3 0	24,660 0 0
c. Bamboos	.....	10,663 0 7	7,489 0 6	4,673 11 1	2,000 2 6	341 12 3	4,701 15 3	1,540 4 7	329 1 9	.....	16,306 4 7	1,660 10 6	.....	50,305 15 7	43,050 0 0
d. Grazing and fodder grass ...	.....	13,754 8 6	4,938 2 9	85,032 10 1	1,01,863 4 3	39,289 11 4	67,594 7 1	47,373 0 6	44,783 5 3	23,689 13 5	995 15 0	6,605 11 0	.....	4,35,922 9 2	3,45,250 0 0
e. Other minor produce	.....	4,901 15 6	2,205 14 3	1,208 4 0	8,096 15 6	1,369 10 6	4,544 6 5	7,413 9 0	3,339 10 6	541 3 3	2,224 15 6	1,942 2 0	.....	37,848 10 5	34,100 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	494 1 6	804 7 4	396 6 6	823 7 9	108 14 2	116 9 9	260 2 7	103 2 1	29 2 3	605 7 1	172 10 9	.....	3,814 7 9	3,570 0 0
IV.—Revenue from Forests not managed by Government—															
a. Duty on foreign timber and other forest produce	.....	.....	.....	14,176 6 3	9,410 2 9	.....	.....	.....	.....	.....	.....	16 0 0	.....	23,602 9 0	30,160 0 0
b. Revenue from shared and private forests...	.....	613 0 7	1,635 7 1	.....	.....	.....	.....	294 5 7	.....	.....	645 2 10	.....	.....	3,188 0 1	4,360 0 0
V.—Miscellaneous.															
a. Fines and forfeitures	.....	8,615 5 7	4,213 7 8	.....	.....	.....	284 5 9	258 7 11	53 13 4	16 12 10	.....	124 15 9	.....	13,546 4 10	5,150 0 0
b. Refunds	.....	108 15 4	1 10 6	0 4 0	50 7 2	0 4 0	15 15 5	295 2 6	39 4 3	22 12 7	1 0 5	13 11 3	.....	548 7 5	10 0 0
c. Other sources	3 8 0	4,685 6 3	1,561 1 9	6,832 9 0	7,762 0 1	890 0 10	3,472 7 0	1,278 0 2	1,468 10 11	409 15 0	877 9 5	1,125 6 4	2 8 0	30,309 2 9	11,180 0 0
Total Revenue ...	3 8 0	3,05,430 8 11	1,27,438 8 1	1,50,811 4 2	2,02,943 3 5	57,410 12 10	1,22,513 6 10	95,189 1 2	88,641 12 10	30,640 12 7	1,04,299 4 4	77,102 15 9	2 8 0	13,62,427 10 11	12,89,000 0 0
EXPENDITURE.															
A.—Conservancy and Works.															
I.—Timber and other Produce removed from the Forests by Government Agency—															
a. Timber	.....	2,346 3 8	986 8 6	1,338 10 0	4,157 15 1	1,261 3 6	206 4 10	3,087 9 3	1,469 15 6	5 8 0	14,714 12 3	996 3 9	.....	30,570 14 4	31,585 0 0
b. Firewood and charcoal	.....	633 5 0	0 4 0	2,999 2 0	1,835 10 1	.....	1,149 15 7	355 7 9	1,342 14 0	100 3 0	.....	.....	.....	8,416 13 5	9,250 0 0
c. Bamboos	.....	.....	.....	.....	10 0 0	.....	.....	.....	.....	.....	1 6 0	.....	.....	11 6 0	.....
d. Sandalwood...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	497 7 8	977 11 10	62 9 3	.....	851 8 9	40 2 1	29 12 5	5,099 12 11	37 10 4	.....	.....	.....	7,596 11 3	9,440 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers	.....	6,363 1 4	3,856 10 0	6,304 15 3	5,615 5 9	1,890 3 6	3,075 11 1	924 1 7	1,073 14 8	649 9 3	2,667 7 10	880 7 9	.....	33,301 7 10	31,225 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	36 12 6	40 5 8	32 1 3	0 15 0	2 4 3	6 8 0	4 7 0	.....	.....	1 15 9	3 12 6	.....	129 2 11	250 0 0
IV.—Revenue from Forests not managed by Government—															
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	202 6 1	.....	.....	.....	.....	.....	202 6 1	200 0 0

V.—Rent of Leased Forests and Payments to Shareholders in Forests managed by Government.	.....	.....	639 14 0	.....	.....	23 9 10	4 15 0	2,110 4 7	3,733 12 5	.....	12,995 3 6	.....	.....	19,507 2 4	17,750 0 0
VI.—Live Stock, Stores, Tools and Plant—															
a. Purchase of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant	541 0 0	108 11 10	83 1 4	.....	82 9 3	139 4 3	782 15 0	1,099 10 3	729 9 6	18 3 0	24 2 0	160 6 0	.....	3,764 8 5	350 0 0
VII.—Communications and Buildings—															
a. Roads and bridges	.....	.....	.....	.....	.....	49 14 0	.....	.....	.....	12 6 0	656 12 3	.....	.....	719 1 3	1,550 0 0
b. Buildings	.....	747 9 0	2,315 8 0	154 0 0	888 5 0	1 6 6	494 3 0	36 1 0	75 5 0	.....	1,394 7 4	270 9 6	.....	6,287 6 4	10,035 0 0
c. Other works	.....	.....	22 8 0	.....	.....	37 11 0	.....	.....	.....	.....	146 3 3	.....	.....	206 6 3	500 0 0
VIII.—Demarcation, Improvement and Extension of Forests—															
a. Demarcation	.....	4,896 8 3	248 12 11	237 4 3	7,896 6 1	2,020 3 0	5,134 11 11	4,074 14 1	3,107 5 0	397 3 7	2,161 9 7	723 1 5	.....	29,880 0 1	30,800 0 0
b. Compensation for land and rights	.....	.....	12 0 0	4,797 15 1	381 0 0	688 5 4	120 0 0	11,759 1 1	94 4 0	851 1 6	1,869 0 0	672 15 10	.....	21,245 10 10	20,225 0 0
c. Surveys and Working Plans	.....	881 10 2	15,348 9 5	80 15 9	378 6 6	872 13 4	1,614 3 11	8,465 13 10	440 12 0	3,691 4 6	367 1 10	546 6 10	6,947 2 6	38,535 4 7	66,490 0 0
d. Sowing and planting	.....	797 5 5	1,030 9 9	74 12 9	604 10 3	2,024 8 10	1,236 2 9	1,644 0 10	665 14 11	435 11 1	853 14 4	258 12 7	.....	9,620 7 5	14,150 0 0
e. Protection from fire	.....	3,364 0 9	715 14 0	176 0 0	226 6 9	.....	127 7 6	11 4 0	.....	.....	43 5 3	2 0 0	.....	3,666 5 6	4,300 0 0
f. Other Works	.....	2,323 6 0	1,779 5 1	.....	.....	3,348 0 9	121 0 6	3,834 14 2	198 12 6	1,448 2 5	16 9 3	.....	.....	13,080 2 8	13,000 0 0
IX.—Miscellaneous—															
a. Refunds	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Law charges	.....	.....	45 1 10	.....	2 4 0	.....	.....	13 5 1	3 8 0	.....	.....	.....	.....	64 2 11	.....
c. Other charges	26 4 0	440 7 10	428 6 7	329 13 10	917 11 5	104 1 8	1,832 3 3	—123 0 0	1,279 2 10	63 12 8	203 6 10	—6 13 0	.....	5,495 9 11	29,330 0 0
Total, A.—Conservancy and Works	567 4 0	22,428 10 5	28,531 2 11	16,578 3 5	22,997 8 4	13,314 9 6	15,946 8 5	37,584 5 0	18,275 11 1	6,710 11 4	37,931 6 3	4,507 15 2	6,947 2 6	2,32,321 2 4	2,90,430 0 0
B.—ESTABLISHMENTS															
I.—Salaries—															
a. Conservators	18,000 0 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,000 0 0	18,000 0 0
b. Superior officers	1,100 0 0	9,036 10 8	7,880 10 3	10,800 0 0	6,005 0 0	6,911 6 4	11,563 9 2	14,491 15 0	9,550 0 0	6,600 0 0	3,271 12 0	6,575 0 0	9,600 0 0	1,08,385 15 5	1,08,000 0 0
c. Subordinate Forest and Depôt establishments	.....	25,811 13 4	24,782 4 6	23,337 15 2	23,710 4 7	23,965 8 2	32,615 4 10	34,343 10 5	27,754 11 1	12,546 5 9	9,703 9 1	*11,598 6 9	.....	2,49,169 13 8	2,64,716 0 0
d. Office establishments	6,673 6 4	3,123 10 3	3,202 13 4	2,113 9 7	2,551 4 8	2,131 4 9	2,477 1 3	2,602 14 11	2,566 14 7	1,753 10 3	2,157 8 8	1,875 9 11	1,027 4 9	34,256 1 3	33,840 0 0
e. Deputation and special allowances	483 0 0	120 0 0	.....	561 10 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,164 10 6	1,741 0 0
II.—Travelling Allowances—															
a. Conservators	2,400 0 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,400 0 0	2,400 0 0
b. Superior officers	300 0 0	3,023 4 3	2,477 6 9	1,822 5 2	1,806 9 10	1,800 0 0	2,553 8 0	2,517 1 1	2,405 15 9	1,800 0 0	1,908 4 6	1,652 9 8	1,800 0 0	25,865 0 11	26,640 0 0
c. Subordinate Forest and Depôt establishments	.....	988 10 5	1,086 3 8	1,640 15 4	1,389 9 3	1,660 4 1	3,137 2 3	1,612 10 2	1,857 0 5	877 1 4	841 13 4	682 11 11	331 3 5	14,774 2 2	15,000 0 0
d. Office establishments	1,641 0 10	985 3 3	993 3 4	753 14 3	547 12 8	779 5 7	923 9 1	947 5 7	866 10 6	639 8 6	785 11 7	648 10 9	.....	11,142 2 4	12,800 0 0
III.—Contingencies—															
a. Stationery	23 6 0	389 0 8	789 2 10	372 0 7	350 12 1	380 2 0	501 0 0	363 12 6	577 7 5	313 4 7	201 4 6	225 14 2	.....	4,016 4 4	4,120 0 0
b. Carriage of tents and records	456 5 6	406 12 3	384 1 6	131 13 6	261 13 6	157 13 0	489 13 4	283 8 6	359 7 0	96 3 6	317 9 9	179 2 0	.....	3,434 7 4	3,250 0 0
c. Rents, rates and taxes	480 0 0	232 10 0	172 6 8	300 0 0	296 9 2	312 0 0	119 0 0	253 0 0	47 8 0	31 8 0	100 0 0	.....	.....	2,343 9 10	2,480 0 0
d. Pay of Police guards	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage	440 7 0	661 6 0	674 10 0	675 9 0	778 5 0	736 3 0	1,175 14 0	907 0 6	990 6 0	388 15 0	388 3 6	287 3 3	.....	8,304 2 3	6,700 0 0
f. Sundries	2,170 8 1	236 4 11	308 6 3	494 12 7	941 0 10	146 10 9	459 1 11	269 3 9	283 11 11	56 12 6	87 4 11	133 14 7	.....	5,585 13 0	6,199 0 0
Payments to officers of other Provinces	1,240 11 3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,240 11 3	.....
Total, B.—Establishments	35,407 13 0	45,014 4 11	42,553 5 1	43,002 9 8	38,939 1 7	38,980 10 8	55,012 15 10	58,619 2 5	47,259 12 8	25,002 5 5	18,663 1 10	23,859 3 0	12,758 8 2	4,85,072 14 3	5,66,686 0 0
															7,97,116 0 0
															5,716 0 0
Grand Total of Expenditure	35,975 1 0	67,442 15 4	71,084 8 0	59,580 13 1	61,936 9 11	52,295 4 2	70,959 8 3	96,203 7 5	65,535 7 9	31,713 0 9	56,594 8 1	28,367 2 3	19,705 10 8	7,17,394 0 7	7,91,400 0 0

No. $\frac{F.}{12543}$

Forwarded to the Conservator of Forests, Northern Circle, under Section 238 of the Forest Department Code.

Bombay, Accountant General's Office, dated 3rd August 1892.

GODREZJEE D. PADUMJEE,
For Accountant General.

FORM No. 59.

Forest Department, Bombay, Northern Circle.

Annual Account Current for the year 1891-92.

	R. a. p.	Rs. a. p.
To Opening Balance	...	678 8 6
„ Land Revenue and Miscellaneous other items.	.....	1,975 14 0
„ VIII.—Assessed Taxes—Income Tax—Deductions by Government from Salaries and Pensions ..	.....	4,305 0 1
„ IX.—Forest (as per Summary) ...	.....	13,62,427 10 11
„ XII.—Interest—Interest on Arrears of Revenue ...	.....	189 7 11
„ XVI.—Law and Justice—Fines, Fees, &c.—Magisterial Fines	.....	100 0 0
„ XXIII.—Stationery and Printing—Stationery Receipts—Sale-proceeds of Stationery Boxes.	.....	2 2 0
Other Press Receipts—Government Central Press ...	.....	25 0 0
„ Revenue Deposits—(Forests)	.....	67,619 14 5
„ Cheques and Bills (Departmental cheque), Forest	.....	7,85,007 4 6
„ Advances Recoverable—		
Forest Advances	4,37,021 8 4	
Tentage Advances	133 5 0	
Objection Book Advances	1,903 12 10	
		4,39,058 10 2

	Rs. a. p.	Rs. a. p.
By 1.—Refunds and Drawbacks—Refunds, Divided Heads, Forest ..	.....	2,546 15 4
„ 11.—Forest (as per Summary) ...	.....	7,17,394 0 7
„ 19.—Law and Justice—Jails, District Jails, Contingencies ..	.....	.....
„ 30.—Stationery and Printing—Government Central Press Contingencies, Miscellaneous	.....	0 5 0
„ Revenue Deposits (Forests)	.....	55,642 4 8
„ Cheques and Bills (Forest cheques cancelled)	.....	2,755 7 2
„ Advances Recoverable—		
Forest Advances	4,39,120 7 2	
Tentage Advances	400 0 0	
Objection Book Advances	2,241 12 5	
		4,41,762 3 7
„ Cash Recoveries	.....	14,971 9 2
„ Forest Remittances—		
Remittances to Treasuries ...	14,25,270 15 10	
Inter-divisional Transfers	82,802 11 3	
Inter-departmental Transfers ...	4,362 13 7	
		15,12,436 8 8
„ Accounts Current—		
Account between India and Bombay—		
III.—Items adjustable by India ...	.....	.....
Bengal Uncovenanted Service Family Pension Fund ..	.....	23 10 0

„ Cash Recoveries	.....			14,971	9	2	„ Military Orphan Fund	.....	47 0 0
„ Forest Remittances—							„ Account between Bombay and Public Works Department, Bombay—(Ordinary Branches—		
Remittances to Treasuries	452	1	3						
Inter-divisional Transfers	47,861	5	8						
Inter-departmental Transfers	23,398	0	0						
				71,711	6	11	IV.—Items adjustable by Public Works Department—Inter-departmental Charges.	.....	419 8 0
„ Bombay Uncovenanted Service Family Pension Fund, Widows' Branch ...	.....			1,981	7	7	„ Account between Bombay and Public Works Department (Railway Branch) Railway—		
„ Account between India and Bombay—							IV.—Items Adjustable by Public Works Department	.....	.....
III.—Items adjustable by India—									
Bengal Military Fund	.....			450	0	0	„ Suspense	.....	3 0 0
Do. do. Orphan Fund ...	.....			250	10	4			
Bengal Uncovenanted Service Family Pension Fund	.....			23	10	0	Closing Balance ...	.....	3,222 1 6
Miscellaneous	.....			2	0	0			
„ Account between Bombay and Public Works Department, Bombay—									
IV.—Payments into Treasuries by Civil Officers on account of Public Works Department	.....			441	5	2			
„ Suspense...	.....			3	0	0			
Total ...	.....			27,51,224	9	8	Total ...	.....	27,51,224 9 8

No. $\frac{F.}{1243}$.

Forwarded to the Conservator of Forests, Northern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office,
Bombay, 3rd August 1892.

GODREZJI D. PUDUMJI,
For Accountant General

FORM No. 60.

Forest Department, Bombay, Northern Circle.

Revenue received and Outstandings on account of Revenue during 1891-92.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
North Thána ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	2,174 11 6	2,174 11 6	2,174 11 6	.....	
	b. Firewood and charcoal	.....	415 7 9	415 7 9	415 7 9	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	1,792 3 3	1,792 3 3	1,792 3 3	.....	
	II.—Timber and other Produce removed from the Forests by the Consumers or Purchasers—						
	a. Timber	.....	2,52,655 4 9	2,52,655 4 9	2,50,307 0 9	2,348 4 0	
	b. Firewood and charcoal	.....	6,904 11 10	6,904 11 10	6,904 11 10	.....	
	c. Bamboos	.....	10,663 0 7	10,663 0 7	10,663 0 7	.....	
	d. Grazing and fodder grass ...	.....	13,754 8 6	13,754 8 6	13,754 8 6	.....	
	e. Other minor produce	.....	4,901 15 6	4,901 15 6	4,901 15 6	.....	
	III.—Drift and Waif wood and confiscated forest produce	.....	494 1 6	494 1 6	494 1 6	.....	
	Total ...	.....	2,93,756 1 2	2,93,756 1 2	2,91,407 13 2	2,348 4 0	
South Thána ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	2,531 8 9	2,531 8 9	2,531 8 9	.....	
	b. Firewood and charcoal	.....	1 11 6	1 11 6	1 11 6	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	4,075 6 9	4,075 6 9	4,075 6 9	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	66 9 0	99,835 7 0	99,902 0 0	96,413 6 0	3,488 10 0	The sum of Rs. 34-10-0 has been written off as per conservator's No. 383 of 23rd April 1892 in April 1892 and Rs. 3,454 have been recovered in May 1892.
	b. Firewood and charcoal	.....	1,507 3 3	1,507 3 3	1,507 3 3	.....	
	c. Bamboos	.....	7,489 0 6	7,489 0 6	7,489 0 6	.....	
	d. Grazing and fodder grass ...	.....	4,938 2 9	4,938 2 9	4,938 2 9	.....	

	e. Other minor produce	.....	2,265 14 3	2,265 14 3	2,265 14 3	.....
	III.—Drift and Waif wood and Confiscated forest produce	.....	804 7 4	804 7 4	804 7 4	.....
	Total ...	66 9 0	1,23,448 14 1	1,23,515 7 1	1,20,026 13 1	3,488 10 0
East Khándesh.	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	.....	10,448 7 9	10,448 7 9	10,448 7 9	.....
	b. Firewood and charcoal	.....	14,229 9 0	14,229 9 0	14,229 9 0	.....
	c. Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood	.....	.....	.....	.....	.....
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	.....	4,354 4 0	4,354 4 0	4,354 4 0	.....
	b. Firewood and charcoal	.....	9,458 12 6	9,458 12 6	9,458 12 6	.....
	c. Bamboos	.....	4,673 11 1	4,673 11 1	4,673 11 1	.....
	d. Grazing and fodder grass ...	.....	85,032 10 1	85,032 10 1	85,032 10 1	.....
	e. Other minor produce	.....	1,208 4 0	1,208 4 0	1,208 4 0	.....
	III.—Drift and Waif wood and Confiscated forest produce	.....	396 6 6	396 6 6	396 6 6	.....
	Total ..	.....	1,29,802 1 11	1,29,802 1 11	1,29,802 1 11	.....
West Khándesh.	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	.....	56,804 4 5	56,804 4 5	48,985 4 5	7,819 0 0
	b. Firewood and charcoal	.....	11,014 6 0	11,014 6 0	11,014 6 0	.....
	c. Bamboos	.....	58 0 0	58 0 0	58 0 0	.....
	d. Sandalwood	.....	.....	.....	.....	.....
	e. Grass and other minor produce ...	.....	1 4 0	1 4 0	1 4 0	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	.....	8,883 12 0	8,883 12 0	8,883 12 0	.....
	b. Firewood and charcoal	.....	3,394 1 0	3,394 1 0	3,394 1 0	.....
	c. Bamboos	.....	2,600 2 6	2,600 2 6	2,600 2 6	.....
	d. Grazing and fodder grass ...	.....	1,01,863 4 3	1,01,863 4 3	1,01,863 4 3	.....
	e. Other minor produce	.....	8,096 15 6	8,096 15 6	8,096 15 6	.....
	III.—Drift and Waif wood and Confiscated forest produce	.....	823 7 9	823 7 9	823 7 9	.....
	Total ...	.....	1,93,539 9 5	1,93,539 9 5	1,85,720 9 5	7,819 0 0

FORM No. 60—*continued.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a p.	Rs. a. p.	Rs. a. p	Rs. a. p	Rs. a. p.	
Násik	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	348 14 0	2,768 0 2	3,116 14 2	3,102 12 2	14 2 0	
	b. Firewood and charcoal	.....	3,794 11 6	3,794 11 6	3,794 11 6	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	3 11 0	3 11 0	3 11 0	.....	
	e. Grass and other minor produce ...	.....	30 8 0	30 8 0	30 8 0	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	309 0 0	33,621 15 6	33,930 15 6	33,488 7 6	442 8 0	
	b. Firewood and charcoal	.....	1,381 2 0	1,381 2 0	1,381 2 0	.....	
	c. Bamboos	.....	4,701 15 3	4,701 15 3	4,701 15 3	.....	
	d. Grazing and fodder grass ...	3 12 0	68,069 11 1	68,073 7 1	67,596 7 1	477 0 0	
	e. Other minor produce	300 0 0	4,639 9 2	4,939 9 2	4,544 6 5	395 2 9	
	III.—Drift and Waif wood and Confiscated forest produce	.....	116 9 9	116 9 9	116 9 9	.....	
	Total ...	961 10 0	1,19,127 13 5	1,20,089 7 5	1,18,760 10 8	1,328 12 9	
Ahmednagar ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	7,977 0 0	7,977 0 0	7,977 0 0	.....	
	b. Firewood and charcoal	.....	755 5 0	755 5 0	755 5 0	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	3,100 0 0	3,100 0 0	3,100 0 0	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	158 4 0	158 4 0	158 4 0	.....	
	b. Firewood and charcoal	155 0 0	3,324 14 9	3,479 14 9	3,479 14 9	.....	
	c. Bamboos	.....	341 12 3	341 12 3	341 12 3	.....	
	d. Grazing and fodder grass ...	.....	39,289 11 4	39,289 11 4	39,289 11 4	.....	

	e. Other minor produce	.....	1,369 10 6	1,369 10 6	1,369 10 6	.....
	III.—Drift and Waif wood and Confiscated forest produce	.....	108 14 2	108 14 2	108 14 2	.....
	Total ..	155 0 0	56,425 8 0	56,580 8 0	56,580 8 0	.....
Poona	*I.—Timber and other produce removed from the Forests by Government Agency—*					
	a. Timber	.....	26,129 8 6	26,129 8 6	26,129 8 6	.....
	b. Firewood and charcoal	.....	1,811 11 11	1,811 11 11	1,796 4 0	15 7 11
	c Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood...	.....	0 8 6	0 8 6	0 8 6	.....
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	.....	234 11 3	234 11 3	234 11 3	.....
	b. Firewood and charcoal	.....	8,577 4 1	8,577 4 1	8,315 0 1	262 4 0
	c. Bamboos	.....	1,540 4 7	1,540 4 7	1,540 4 7	.....
	d. Grazing and fodder grass ...	61 0 0	47,312 0 6	47,373 0 6	47,373 0 6	.....
	e. Other minor produce	.....	7,423 9 0	7,423 9 0	7,413 9 0	10 0 0
	III.—Drift and Waif wood and Confiscated forest produce	.....	260 2 7	260 2 7	260 2 7	.....
	Total ...	61 0 0	93,289 12 11	93,350 12 11	93,063 1 0	287 11 11
Sátára	*I.—Timber and other produce removed from the Forests by Government Agency—*					
	a. Timber	.....	13,618 0 9	13,618 0 9	13,618 0 9	.....
	b. Firewood and charcoal	.....	4,229 9 9	4,229 9 9	4,229 9 9	.....
	c. Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood...	.....	.....	.....	.....	.....
	e. Grass and other minor produce ...	.....	19,409 9 2	19,409 9 2	19,409 9 2	.....
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	.....	801 0 6	801 0 6	801 0 6	.....
	b. Firewood and charcoal	.....	467 8 7	467 8 7	467 8 7	.....
	c. Bamboos	.....	329 1 9	329 1 9	329 1 9	.....
	d. Grazing and fodder grass ...	44 13 0	44,738 8 3	44,783 5 3	44,783 5 3	.....
	e. Other minor produce	.....	3,339 10 6	3,339 10 6	3,339 10 6	.....
	III.—Drift and Waif wood and Confiscated forest produce	.....	103 2 1	103 2 1	103 2 1	.....
	Total ...	44 13 0	87,036 3 4	87,081 0 4	87,081 0 4	.....

BENGAL SECRETARIAT LIBRARY

FORM No. 60—*concluded.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Sholápur ...	*I.—Timber and other produce removed from the Forests by Government Agency—*						
	a. Timber	.....	90 7 3	90 7 3	90 7 3	.....	
	b. Firewood and charcoal	.....	1,293 6 3	1,293 6 3	1,293 6 3	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	17 9 0	17 9 0	17 9 0	.....	
	e. Grass and other minor produce ...	0 10 0	15 11 0	16 5 0	16 5 0	.....	
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	175 11 9	175 11 9	175 11 9	.....	
	b. Firewood and charcoal	.....	4,337 10 0	4,337 10 0	4,337 10 0	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Grazing and fodder grass ...	70 0 0	23,689 13 5	23,759 13 5	23,689 13 5	70 0 0	
	e. Other minor produce	.....	541 3 3	541 3 3	541 3 3	.....	
	III.—Drift and Waif wood and Confiscated forest produce	.....	29 2 3	29 2 3	29 2 3	.....	
	Total ...	70 10 0	30,190 10 2	30,261 4 2	30,191 4 2	70 0 0	
Surat	*I.—Timber and other produce removed from the Forests by Government Agency—*						
	a. Timber	.....	48,136 1 1	48,136 1 1	48,136 1 1	.....	
	b. Firewood and charcoal	.....	500 8 0	500 8 0	500 8 0	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....	
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	38,619 8 5	38,619 8 5	33,319 8 5	5,300 0 0	
	b. Firewood and charcoal	.....	786 12 0	786 12 0	786 12 0	.....	
	c. Bamboos	.....	16,306 4 7	16,306 4 7	16,306 4 7	.....	
	d. Grazing and fodder grass ...	.....	995 15 0	995 15 0	995 15 0	.....	
	e. Other minor produce	.....	2,224 15 6	2,224 15 6	2,224 15 6	.....	
	III.—Drift and Waif wood and Confiscated forest produce	.....	505 7 1	505 7 1	505 7 1	.....	
	Total ...	.....	1,08,075 7 8	1,08,075 7 8	1,02,775 7 8	5,300 0 0	

Panch Mahâls...	*I.—Timber and other produce removed from the Forests by Government Agency—*					
	a. Timber	.....	4,197 3 0	4,197 3 0	4,19 3 0	.....
	b. Firewood and charcoal	.....	3,718 5 0	3,718 5 0	3,718 5 0	.....
	c. Bamboos	.....	1 8 0	1 8 0	1 8 0	.....
	d. Sandalwood...	.....	.....	.....	.....	.....
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	.....	55,230 5 2	55,230 5 2	55,230 5 2	.....
	b Firewood and charcoal	.....	2,294 7 0	2,294 7 0	2,294 7 0	.....
	c. Bamboos	.....	1,660 10 6	1,660 10 6	1,660 10 6	.....
	d. Grazing and fodder grass ...	.....	6,605 11 0	6,605 11 0	6,605 11 0	.....
	e. Other minor produce	.....	1,942 2 0	1,942 2 0	1,942 2 0	.....
	III.—Drift and Waif wood and Confiscated forest produce	.....	172 10 9	172 10 9	172 10 9	.....
	Total ...	.....	75,822 14 5	75,822 14 5	75,822 14 5	.....
Total, Northern Circle.	*I.—Timber and other produce removed from the Forests by Government Agency—*					
	a. Timber	348 14 0	1,74,875 5 2	1,75,224 3 2	1,67,391 1 2	7,833 2 0
	b. Firewood and charcoal	.....	41,764 11 8	41,764 11 8	41,749 3 9	15 7 11
	c. Bamboos	.....	59 8 0	59 8 0	59 8 0	.....
	d. Sandalwood	.....	21 12 6	21 12 6	21 12 6	.....
	e. Grass and other minor produce ...	0 10 0	28,424 10 2	28,425 4 2	28,425 4 2	.....
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	375 9 0	4,94,570 4 4	4,94,945 13 4	4,83,366 7 4	11,579 6 0
	b. Firewood and charcoal	155 0 0	42,434 7 0	42,589 7 0	42,327 3 0	262 4 0
	c. Bamboos	.....	50,305 15 7	50,305 15 7	50,305 15 7	.....
	d. Grazing and fodder grass ...	179 9 0	4,36,290 0 2	4,36,469 9 2	4,35,922 9 2	547 0 0
	e. Other minor produce	300 0 0	37,953 13 2	38,253 13 2	37,848 10 5	405 2 9
	III.—Drift and Waif wood and Confiscated forest produce	.....	3,814 7 9	3,814 7 9	3,814 7 9	.....
	Grand Total ...	1,359 10 0	13,10,514 15 6	13,11,874 9 6	12,91,232 2 10	20,642 6 8

NOTE.—The revenue under Budget heads IV and V is Rs. 26,790-9-1 and Rs. 44,404-15-0, respectively. This has not been shown in this statement in detail, as there are no outstandings against these heads. The total amount realised during the year is Rs. 13,62,427 10-11 (*vide* Form No. 58).

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 61.

Forest Department, Bombay, Northern Circle.

Outstandings and Liabilities on account of Contractors and Disbursers for the year 1891-92.

Division.	Department Debtor.			Department Creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during year.	At close of year.	At commencement of year.	Payments made during the year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors...	Nil.	.....	.....	.....	.....	.....	.....	...	
Total ...	Nil.	.....	.....	.....	.....	.....	.....	...	
Disbursers.									
North Thána	...	48,320 4 10	48,320 4 10	.....	48,320 4 10	48,320 4 10	.....	...	
South do.	...	46,850 13 0	46,850 13 0	160 3 6	46,861 5 0	47,021 8 6	170 11 6	...	
East Khándesh	...	33,235 5 6	33,235 5 6	11 8 0	33,224 4 5	33,235 12 5	0 6 11	...	
West do.	...	57,386 13 3	57,386 13 3	141 3 2	57,745 10 2	57,886 13 4	500 0 1	...	
Násik	...	47,793 13 2	47,793 13 2	400 1 11	48,096 5 0	48,496 6 11	702 9 9	...	
Ahmednagar	...	35,973 7 9	35,973 7 9	174 6 8	35,799 1 1	35,973 7 9	.....	...	
Poona	...	53,312 9 3	53,312 9 3	3 0 0	53,309 9 3	53,312 9 3	.....	...	
Sátára	...	45,031 1 5	45,031 1 5	38 10 9	45,042 6 8	45,081 1 5	50 0 0	...	
Sholápur	...	15,935 15 3	15,935 15 3	84 9 0	15,851 6 3	15,935 15 3	.....	...	
Surat	...	31,375 6 8	31,375 6 8	50 0 0	32,669 15 3	32,719 15 3	1,344 8 7	...	
Panch Mahále	...	16,145 0 0	16,145 0 0	.....	16,145 0 0	16,145 0 0	.....	...	
Working Plans	...	2,035 2 0	2,035 2 0	.....	2,035 2 0	2,035 2 0	.....	...	
Bombay Forest Surveys ...	...	3,625 12 3	3,625 12 3	2,437 14 1	4,020 1 3	6,457 15 4	2,832 3 1	...	
Total, Disbursers ..	...	4,37,021 8 4	4,37,021 8 4	3,501 9 1	4,39,120 7 2	4,42,622 0 3	5,600 7 11	...	
Grand Total ...	...	4,37,021 8 4	4,37,021 8 4	3,501 9 1	4,39,120 7 2	4,42,622 0 3	5,600 7 11	...	

No. $\frac{F}{12544}$.

Forwarded to the Conservator of Forests, Northern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office,
Bombay, 3rd August 1892.

GODREZJI D. PUDUMJI,
for Accountant General.

ANNUAL FORM No. 62.

Forest Department, Bombay, Northern Circle.

Financial Results of the year 1891-92.

Division.	Timber and other Produce removed from the Forests by Government Agency.		Other Revenue.		Formation, Protection and Improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
North Thána	4,383	5,875	3,01,051	8,798	67,847	3,05,434	82,520	
South Thána	6,608	3,724	1,20,833	5,656	73,904	1,27,441	83,284	
East Khándesh	24,678	5,359	1,26,133	7,296	49,804	1,50,811	62,459	
West Khándesh	60,059	7,443	1,42,884	7,055	51,756	2,02,943	66,254	
Násik	6,932	2,358	1,15,582	4,044	67,436	1,22,514	73,838	
Ahmednagar	11,832	2,604	45,578	2,384	48,747	57,410	53,735	
Poona	27,926	5,487	67,263	3,145	94,391	95,189	1,03,023	
Sátára	37,257	10,739	51,385	3,900	53,776	88,642	68,415	
Sholápur	1,418	622	29,223	1,130	31,399	30,641	33,151	
Surat	48,637	22,172	55,663	10,126	27,173	1,04,300	59,471	
Panch Maháls	7,917	1,955	69,186	1,843	27,446	77,103	31,244	
Total ...	2,37,647	68,338	11,24,781	55,377	5,93,679	13,62,428	7,17,394	

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 31st October 1892.

No. 104 OF 1893.

REVENUE DEPARTMENT.
Ahmedabad, 11th January 1893.

In forwarding the report of the Conservator of Forests, N. C. (old), for 1891-92, the undersigned feels that as he has only just taken charge of this Division and has had no previous experience of forest work in the Northern Division, it is useless for him to make any lengthened remarks.

2. The exclusion of Karjat from the Northern Division has made a considerable difference in the forest area; except this the only important change in the area is the addition of over 37 square miles in the Váda range in the Northern Thána Division.

3. Paragraph 25 shows that there is still much settlement work to be done in both North and South Thána.

4. Paragraph 26 shows the work that was done in the Dáhánu Táluka, and it will be seen that the Collector, though he considers that the amount of work was not what had been hoped, is of opinion that this is excused by the unhealthiness of the season.

5. The work in Surat proper and the Panch Maháls was too small to call for any remark.

6. *Paragraphs 49 and 50.*—It is interesting to read the remarks of the Conservator on the fact that the villagers have not availed themselves of the privilege of taking ráb from coupes that were being cut during the season. It cannot be that all the coupes of the year were in inaccessible spots, and so far as it goes this fact seems to show that the villagers do not experience any great difficulty in getting ráb from sources ordinarily open to them.

7. *Surveys.*—A fair amount of work was done in North and South Thána. It is difficult for any one but an expert to give an opinion on the mileage rates of the 8-inch survey, though the explanation that the 16-inch survey was only of the Deccan bábul reserves explains the apparent cheapness of the larger scale.

8. *Working Plans.*—Principally concerned with the two divisions of Thána. It is as yet too early to give any opinion about the practical effect of this, but Mr. Fry appears to have done good work.

9. Special attention has been attracted during the past year to punishments for breaches of the forest law, and to cases of compounding under Section 67 of the Act.

10. It is satisfactory to find that for the four districts in the Northern Division the record is so good. Considering the extent of country under forest the number of criminal prosecutions is by no means excessive, and two out of the three cases given in paragraph 89 show that serious cases do occur.

11. It is also clear that there has been no abuse of the power of compounding, and that in this Division by far the largest number of cases dealt with, 342 out of 502, were for misappropriation of timber, and paragraph 105 shows that no rewards at all were given under Government Resolution No. 8568 of 16th December 1887.

12. It is curious to note in paragraph 107 that in only two districts, Násik and Nagar, did the Divisional Forest Officers let off any of the cases in which the offender had agreed to compound.

13. The number of cattle impounded in this Division is by no means large.

14. *Forest Fires.*—The undersigned has just forwarded to Government, No. 82 of 9th January, a letter from the Collector of Thána, detailing the system which he has introduced. It is well calculated to ensure the purpose for which it is designed. The attention of the Collector, Panch Maháls, should be directed to the large number of forest fires in that district.

15. The results of the grazing rules require no special remarks, except that they show a distinct falling off in South Thána, while in North Thána larger revenue has been derived for sale of grass from a smaller area.

16. The small amounts expended in the Northern Division on artificial reproduction have been well spent.

17. The Dáhánu-Jawhár and the Váda-Shirghát roads are both likely to open much good forest country, and at the same time to connect the Násik district with the coast and the B. B. & C. I. Railway.

18. *Paragraphs 202, 203 and 220.*—It is curious to see the very small demand for the material felled in the coupes which remained unsold but were felled in accordance with the orders in Government Resolution No. 650 of 26th January 1891.

19. The general financial results of the year show a very marked increase though for the special reasons shown in paragraphs 239 and 244 there is a large decrease in South Thána, and also in Surat.

20. This is the last year that Mr. Shuttleworth will submit a report for Gujarát and Thána. As usual he has worked most zealously, and his relations with the district officers and the Commissioner have been most cordial. Very few officers could for so many years have continued the close personal supervision that he has given to the very large and scattered area comprised within the old Northern Circle, and his successor in the Northern Circle will find that his work has been made comparatively easy to him.

21. Mr. Shuttleworth has been ably aided by his subordinates, and it is most satisfactory to read the testimonies given by Mr. Sinclair to Messrs. Millet and Osmaston, and also the good reports on Messrs. Madan and Keys.

G. B. REID,
Commissioner, N. D.

No. $\frac{R}{479}$ OF 1893.

REVENUE DEPARTMENT.

Camp Yeola, Násik District,
1st February 1893.

Submitted to Government with the following remarks.

Changes in area.

2. The addition to the area of Reserved Forest in the Central Division amounted to 105 square miles and 113 acres; the largest increase being in the Násik District, and the smallest in East Khándesh. The decrease on account of disforestment in the same class amounted to 8 square miles and 162 acres. And so the net accession to Reserved Forest was 96 square miles and 591 acres. In the area of Protected Forest there was no increase; but a decrease which amounted to 24 square miles and 234 acres.

Demarcation work.

3. Except in four tálukas of the Khándesh District, the regular demarcation work in the Central Division has been completed, and all that remains to be done is the acquisition of occupied lands where such are included in the demarcation schemes; considerable progress appears to have been made in this respect in almost all the districts, but more especially in East Khándesh and Poona. As regards the four tálukas in the Western Division of Khándesh, in which the demarcation work is yet to be completed, Mr. Dodgson has made very creditable progress, in spite of the fact that he was temporarily called away from his work in order to relieve Mr. Loch. And his proposals for the settlement of the southern part of the Pimpalner Táluka have been submitted to Government within the last fortnight.

Boundary marks.

4. The progress made in the erection of boundary marks was satisfactory, especially in the districts of Násik and Poona.

Forest survey.

5. The survey party has performed a good year's work; and the difference between the cost of the 8-inch scale work and the 16-inch scale work is satisfactorily accounted for. The attention of the working-plans staff was chiefly directed to the Thána District, nothing appreciable being done in the Central Division, except the progress made as regards bábul blocks in Poona.

Prosecutions.

6. As in the previous year, the largest number of prosecutions appears against the Poona District, although the actual number has been reduced by nearly 50 per cent. The number of prosecutions has also decreased in the Eastern and Western Divisions of Khándesh; while in Násik, Ahmednagar, Sátára and Sholápur, it shows a considerable increase. Comparing the figures for East and West Khándesh with those for Násik and Ahmednagar, it is curious to find that a decrease in the number of prosecutions is, in the former case, accompanied by an increase in the percentage of failures, and that an increase in the number of prosecutions is, in the latter case, accompanied by a decrease in the percentage of failures. The failures in East and West Khándesh are chiefly attributed to "a tendency in Magistrates to look to the [criminal] intent in all cases"; and it is stated that the District Magistrate intends to issue a circular on the subject to the Subordinate Magistrates. But a preferable course to adopt would seem to be to select a typical case in which the deciding Magistrate has apparently erred in the interpretation or application of the law, and obtain a definite ruling of the High Court; for, a circular issued by the District Magistrate cannot have the force of a High Court ruling; and there is the additional danger that it is apt to be taken in the light of an executive mandate, and, as such, is likely to create an undesirable tendency to go too far in the direction in which it leads.

Cases compounded under Section 67 of the Forest Act.

7. The number of cases compounded under Section 67 of the Forest Act shows a considerable increase in every district in the Central Division, but more especially in Sátára, where the number has risen from 147 in the previous year to 923 in the year of report; the abnormal increase here, however, is more

or less explained by the fact that the present Divisional Forest Officer disposed, during the year, of a good many cases left undisposed of by his predecessor (see paragraph 114 of the report). The number of cases taken into Court shows decreases of about 50 per cent. in Khándesh and Poona, but large increases in the other districts, and especially in Sholápur.

8. The table embodied in paragraph 106 of the report shows that in all the forest divisions, except Násik, compensation was accepted under Section 67 in *all* the cases that were sent up to the Divisional Forest Officer (see figures in columns 3 and 4 of the table). The remark that "in Ahmednagar the Divisional Forest Officer let off many cases wherein the village panch had assessed the damages at below 4 annas" is, therefore, not clearly understood. If there were such cases, they ought to have been shown in column 3; and in that case the figures in columns 3 and 4 would not be identical. Probably the number of such cases let off has not been definitely ascertained, and they have, therefore, been left outside the account.

9. The largest amount of compensation accepted under Section 67 was Rs. 50, and the smallest was one rupee. More than 50 per cent. of the total number of cases in which compensation was accepted fall under the one-rupee category.

10. The suggestion of the District Magistrate of Ahmednagar that "all Magistrates should be appointed Forest Officers for the purpose of carrying out the provisions of Section 67" (referred to in paragraph 116 of the report) does not commend itself to the undersigned. Very heavy additional work would be thrown on the magistracy. And also, the Magistrate who should fail to effect a settlement under Section 67 ought not to be left to try the offender when prosecuted; and the result would be frequent transfers of cases, and consequent delay and worry to all parties concerned.

Cattle impounded.

11. The number of cattle impounded for trespassing into closed areas has slightly decreased, but the number of those impounded for grazing without passes in open areas shows an increase of 36,820 over the previous year's figure. The largest number was impounded in the Ahmednagar District; and the explanation suggested in paragraph 122 of the report, that the pound fees are too light to have a deterrent effect, can hardly be accepted as satisfactory. It is stated in the same paragraph that "proposals to raise the fines in respect of cattle trespassing in the forests of the villages that have been most to blame have already been submitted to Government"; but the fact is that the proposals did not commend themselves to Mr. Reid, who informed the Collector that he did not consider it advisable to submit them to Government.

Fire protection.

12. The division in which forest fires are most rife appears to be the Western Division of Khándesh; and the figures show that a larger area was burnt this year than in the previous year: the Collector observes on this point (see paragraph 130) that "privilege-holders are no doubt to blame for most of the fires in the Sátpuras." The testimony borne by the Conservator of Forests (see paragraph 128) to the co-operation of villagers in East Khándesh in the matter of fire-protection, is satisfactory.

Grass and grazing.

13. In paragraph 138 of the report the Conservator has given the receipts from grass and grazing during the last fourteen years; and the figures show how steadily the revenue from this source has expanded from Rs. 42,629 in 1878-79 to Rs. 4,35,923 in 1891-92. Compared with the previous year, the receipts for 1891-92 show an increase of Rs. 73,940, which, with the exception of the period 1887-88 to 1888-89, very much exceeds the increase in the case of any previous year. This increase appears to be chiefly due to the working of the new grazing rules, which Mr. Shuttleworth observes (paragraph 157) "have worked very fairly, for they do not exact heavy fees."

Communications.

14. Fair progress seems to have been made in opening out the forests along the Sahyádri range in the districts of Khándesh, Násik, Ahmednagar and Poona. As regards the Sátára District, the Conservator states (paragraph 73 of the report) that

Mr. Fry has inspected the Warha and Koyna valleys, and considers it doubtful whether any considerable expenditure in opening out these tracts would be justifiable.

Departmental operations.

15. The receipts on account of departmental fellings in the various forest divisions of the Central Division amounted, during the year under report, to Rs. 1,10,351 on account of timber, Rs. 37,113 on account of firewood, and Rs. 30,021-6-3 on account of minor produce, as against Rs. 97,061 on account of timber, Rs. 27,187 on account of firewood, and Rs. 24,027-8-0 on account of minor produce, in the previous year,—thus showing an increase under each of the three heads. There are no abnormal variations in the receipts for the several divisions, and such differences as are apparent are satisfactorily accounted for.

Free grants of wood

16. The value of the timber of which free grants were made by Revenue Officers in the Central Division during the year under report, was Rs. 1,949, against Rs. 1,587 in the previous year. The entry "Rs." has been inadvertently omitted in columns 3 to 6 of the table embodied in paragraph 229 of the report.

Financial position.

17. The progress in financial results of the forest administration of the Northern Circle will be apparent from the following comparative statement :—

Year.	Receipts.	Expenditure.	Net Revenue.
	Rs.	Rs.	Rs
1887-88	9,68,625 3 5	7,23,135 7 10	2,45,489 11 7
1888-89	11,60,768 8 5	7,27,412 3 9	4,33,356 4 8
1889-90	11,85,540 5 4	7,05,357 3 1	4,80,183 2 3
1890-91	12,57,501 15 3	7,35,704 10 3	5,21,797 5 0
1891-92	13,62,427 10 11	7,17,394 0 7	6,45,033 10 4

The gross receipts have steadily increased from year to year; and the increase is more perceptible in the case of the net receipts, for the obvious reason that expenditure has not expanded *pari passu* with receipts.

Concluding remarks.

18. The report testifies throughout to the thorough manner in which Mr. Shuttleworth has identified himself with the interests of the department of which he holds the charge. And it is gratifying to be able to observe that the Revenue and Forest Officers in the Circle have worked together with complete cordiality.

J. F. FLEET,

Acting Commissioner, C. D.

No. 1007 OF 1893-94.

FROM

A. T. SHUTTLEWORTH, ESQUIRE,
Conservator of Forests, C. C.;

To

G. W. VIDAL, ESQUIRE,
Chief Secretary to Government,
Revenue Department, Bombay.

Office Camp Poona,
Dated 23rd May 1893.

SIR,

I have the honour to report that in the month of March last I received from the Accountant General, Bombay, a supplementary summary of revenue and expenditure, including journal entries, for the year 1891-92, which contains certain corrections in the figures of receipts and expenditure already furnished by him for my Administration Report. I therefore request that Government will kindly cause corrections to be made in the figures of receipts and expenditure of my printed Administration Report for 1891-92, as noted below.

The classifications of cases prosecuted and of cases compounded, exhibited in paragraphs 101 and 103 of my printed report, likewise require to be corrected, as it has been ascertained subsequent to the submission of the printed report, that some Divisional Forest Officers had sorted their cases incorrectly; I would therefore ask—

(*a*) that the statement Appendix A of this letter may be substituted for the statement embodied in paragraph 101 of the report;

(*b*) that the statement Appendix B of this letter may be substituted for statement embodied in paragraph 103;

(*c*) in paragraph 228, "2,267" may be substituted for "2,266" against South Thána in the statement, and the total "37,850" for "37,849" in the column "Amounts, 1891-92;"

(*d*) that the statement Appendix C of this letter may be substituted for the statement embodied in paragraph 236;

(*e*) in paragraph 237 in the fourth line for Rs. "6,45,033," Rs. "6,44,239" be substituted;

(*f*) in paragraph 238 the following figures against the divisions of North Thána, South Thána and Surat be substituted for the existing ones:—

	1891-92.			Decrease.		
	Rs.	a.	p.	Rs.	a.	p.
North Thána	3,05,432	14	11	40	7	4
South Thána	1,27,440	3	9	26,275	14	11
Surat	1,04,599	4	4	6,820	10	8

and against "Total" in the columns "1891-92" and "Decrease" the figures Rs. 13,62,731-12-7 and Rs. 37,145-15-0 respectively;

(*g*) in paragraph 239 in the second line Rs. 26,276 be substituted for Rs. 26,277;

(*h*) in paragraph 247 in the second line for Rs. 2,32,321 and Rs. 15,536, Rs. 2,33,420 and Rs. 14,437 be substituted respectively;

(*i*) the statement Appendix D of this letter be substituted for the statement embodied in paragraph 247;

(*j*) in the first line of paragraph 249, Rs. 7,514 be substituted for Rs. 7,490; in the fifth line Rs. 8,854 for Rs. 9,451; in the first line of paragraph 251, Rs. 5,376 for Rs. 5327; in the 2nd line of paragraph 252, Rs. 923 and 6,949 for Rs. 939 and Rs. 7,266 respectively; in the first line of paragraph 253, Rs. 1,167 for Rs. 1,071; in the second line of paragraph 255, Rs. 13,62,731-12-7 for Rs. 13,62,427-10-11; in the third line Rs. 7,18,493-0-7 for Rs. 7,17,394-0-7, and in the fourth line Rs. 6,44,238-12-0 for Rs. 6,45,033 10-4; in the statement embodied in paragraph 102 against Poona 2,063 for 2,061 and 2,304 for 2,302, and totals 12,327 for 12,325 and 13,589 for 13,587; in the statement in paragraph 107 against Poona in column "Number of cases disposed of, &c." 2,063 for 2,061 and total 12,327 for 12,325; and in statement in paragraph 109 against Poona in column "1891-92" 2,063 for 2,061 and total 12,327 for 12,325;

(*k*) a revised form No. 50 is forwarded herewith marked Appendix E,

(*l*) form Appendix F should be substituted for Form No. 58, and form Appendix G for Form No. 59 of the report.

I have the honour to be,
Sir,
Your most obedient Servant,
A. T. SHUTTLEWORTH,
Conservator of Forests, C. C.

Through the Commissioner, C. D.

No. R.—2308 OF 1893.

REVENUE DEPARTMENT,
Poona, 6th June 1893.

Forwarded

J. F. FLEET,
Commissioner in charge C. D.

APPENDIX A.

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest produce.	(d) Other offences.	
1	North Thána	37	8	6	107	158
2	South Thána	88	...	7	18	113
3	East Khándesh	9	11	14	10	44
4	West Khándesh	8	3	32	33	76
5	Násik	40	...	...	78	118
6	Ahmednagar	15	9	2	140	166
7	Poona	21	39	10	171	241
8	Sátára	27	12	2	64	105
9	Sholápur	...	6	1	169	176
10	Surat	3	...	...	...	3
11	Panch Mahále	53	7	...	2	62
	Total ...	301	95	74	792	1,262

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX B.

No.	Division	Offences relating to the misappropriation of				Total
		(a) Timber.	(b) Firewood.	(c) Minor Forest produce.	(d) Other offences.	
1	North Thána	41	24	21	10	96
2	South Thána	200	...	11	43	254
3	East Khándesh	2	217	...	1,351	1,570
4	West Khándesh	114	184	98	852	1,248
5	Násik	561	..	9	902	1,472
6	Ahmednagar	14	205	1	2,721	2,941
7	Poona	79	323	10	1,651	2,063
8	Sátára	103	273	40	507	923
9	Sholápur	4	12	1	1,591	1,608
10	Surat	...	5	...	12	17
11	Panch Mahále	92	11	24	8	135
	Total ...	1,210	1,254	215	9,618	12,327

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX C.

Year.	Receipts.	Expenditure.			Net Revenue.
		A.—Conservancy and Works.	B.—Establishments.	Total.	
	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.
1890-91	12,57,501 15 3	2,47,857 10 7	4,87,846 15 8	7,35,704 10 3	5,21,797 5 0
1891-92	13,62,731 12 7	2,33,420 2 4	4,85,072 14 3	7,18,493 0 7	6,44,238 12 0
Increase ...	1,05,229 13 4	.....	.....	.....	1,22,441 7 0
Decrease ...	.....	14,437 8 3	2,774 1 5	17,211 9 8	.....

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX D.

No.	Division	1890-91.	1891-92.	Increase.	Decrease.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Direction	.....	567 4 0	567 4 0	.....
2	North Thána	14,938 7 7	22,452 10 5	7,514 2 10	.....
3	South Thána	37,983 0 11	29,128 2 11	.....	8,854 14 0
4	East Khándesh	11,487 8 8	16,578 3 5	5,090 10 9	.....
5	West Khándesh	22,919 8 11	22,997 8 4	77 15 5	.....
6	Násik	10,618 9 6	15,995 8 5	5,376 14 11	.....
7	Ahmednagar	14,254 7 8	13,330 9 6	.....	923 14 2
8	Poona	44,851 1 11	37,901 5 0	.....	6,949 12 11
9	Sátára	16,658 15 10	18,275 11 1	1,616 11 3	.....
10	Sholápur	5,638 13 11	6,806 11 4	1,167 13 5	.....
11	Surat	48,295 9 2	37,931 6 3	.....	10,364 2 11
12	Panch Maháls	3,591 15 10	4,507 15 2	915 15 4	.....
13	Working Plans	16,619 6 8	6,947 2 6	.....	9,672 4 2
	Total ...	2,47,857 10 7	2,33,420 2 4	22,327 7 11	36,765 0 2

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX E.

ANNUAL FORM No. 50.—[*Prescribed.*]

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Register of Breaches of Forest Rules during 1891-92.

Forest Division		Cases pending from 1890-91.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Thána ...	A	9	2	74	4	78	158	167	140	226	18	33	158	259	9
	B	...	...	96	...	...	96	96	96	212	...	...	96	212	...
	C	...	...	224	...	...	224	...	...	...	...	...	...	...	...
	Total	9	2	394	4	78	478	263	236	438	18	33	254	471	9
South Thána ...	A	7	6	98	3	16	123	130	83	245	30	66	113	311	17
	B	...	...	254	...	...	254	254	254	362	...	...	254	362	...
	C	...	...	295	...	...	295	...	...	...	...	...	...	...	...
	Total	7	6	647	3	16	672	384	337	607	30	66	367	673	17
East Khándesh...	A	4	9	11	19	10	49	53	36	82	8	12	44	94	9
	B	...	9	217	653	691	1,570	1,570	1,570	4,290	...	...	1,570	4,290	...
	C	...	2	4	4	7	17	...	...	...	...	...	...	...	...
	Total	4	20	232	676	708	1,636	1,623	1,606	4,372	8	12	1,614	4,384	9
West Khándesh	A	9	20	10	9	33	72	81	58	135	18	46	76	181	5
	B	...	11	326	725	186	1,248	1,248	1,248	3,833	...	...	1,248	3,833	...
	C	...	135	74	13	3	225	...	...	...	...	...	...	...	...
	Total	9	166	410	747	222	1,545	1,329	1,306	3,968	18	46	1,324	4,014	5
Násik	A	20	4	31	54	27	116	136	100	290	18	42	118	332	18
	B	214	94	545	691	93	1,423	1,637	1,213	2,788	510	588	1,472	3,376	165
	C	...	70	139	25	11	245	...	...	...	...	...	...	...	...
	Total	234	168	715	770	131	1,784	1,773	1,313	3,078	528	630	1,590	3,708	183

Ahmednagar ...	A	...	1	26	112	41	180	180	130	327	36	138	166	465	14
	B	534	...	220	2,727	29	2,976	3,510	2,941	7,969	...	...	2,941	7,969	569
	C	...	7	97	58	7	169	...	...	...	...	...	...	...	...
	Total	534	8	343	2,897	77	3,325	3,690	3,071	8,296	36	138	3,107	8,434	583
Poona ...	A	3	1	61	133	52	247	250	183	491	58	224	241	715	9
	B	...	18	429	1,589	27	2,063	2,063	2,061	4,721	2	...	2,063	4,721	...
	C	...	29	42	7	...	78	...	...	...	...	...	...	...	...
	Total	3	48	532	1,729	79	2,388	2,313	2,244	5,212	60	224	2,304	5,436	9
Sátára ...	A	4	4	38	52	24	118	122	78	290	27	113	105	403	17
	B	14	6	460	607	100	1,173	1,187	923	2,299	...	...	923	2,299	264
	C	...	8	109	41	6	164	...	...	...	...	...	...	...	...
	Total	18	18	607	700	130	1,455	1,309	1,001	2,589	27	113	1,028	2,702	281
Sholápur ...	A	5	...	4	161	19	184	189	121	290	55	202	176	492	13
	B	454	...	...	1,582	...	1,582	2,036	1,608	4,703	...	...	1,608	4,703	428
	C	...	2	6	...	...	8	...	...	...	...	...	...	...	...
	Total	459	2	10	1,743	19	1,774	2,225	1,729	4,993	55	202	1,784	5,195	441
Surat ...	A	...	...	3	...	...	3	3	2	3	1	1	3	4	...
	B	...	...	15	2	...	17	17	17	29	...	...	17	29	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	...	...	18	2	...	20	20	19	32	1	1	20	33	...
Panch Mahále ...	A	...	...	62	...	2	64	64	57	110	5	12	62	122	2
	B	...	...	131	2	2	135	135	132	169	3	3	135	172	...
	C	...	...	68	...	...	68	...	...	...	...	...	...	...	...
	Total	...	...	261	2	4	267	199	189	279	8	15	197	294	2
Grand Total ...	A	61	47	418	547	302	1,314	1,375	988	2,489	274	889	1,262	3,378	113
	B	1,216	138	2,693	8,578	1,128	12,537	13,753	11,812	31,375	515	591	12,327	31,966	1,426
	C	...	253	1,058	148	34	1,493	...	...	...	...	...	...	...	...

N.B.—A means cases taken into Court. B means cases disposed of under Section 67 of the Indian Forest Act, 1878. C means undetected cases.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX

FOREST DEPARTMENT,

Supplementary Annual Summary of Revenue and Expenditure of the different

Budget Heads.	Direction.	North Thána Division.	South Thána Division.	East Khándesh Division.	West Khándesh Division.	Ahmednagar Division.
REVENUE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I. Timber and other produce removed from the Forests by Government Agency—						
a. Timber ...	.....	2,174 11 6	2,531 8 9	10,448 7 9	48,985 4 8	7,077 0 0
b. Firewood and charcoal	.....	415 7 9	1 11 6	14,229 9 0	11,014 6 0	755 5 0
c. Bamboos	.....	.....	.....	.....	58 0 0	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	1,792 3 3	4,075 6 9	.....	1 4 0	3,100 0 0
II. Timber and other produce removed from the Forests by Consumers or Purchasers—						
a. Timber	.....	2,50,307 0 9	96,413 6 0	4,354 4 0	8,883 12 0	158 4 0
b. Firewood and charcoal	.....	6,905 11 10	1,507 3 3	9,458 12 6	3,394 1 0	3,479 14 9
c. Bamboos	.....	10,663 0 7	7,489 0 6	4,673 11 1	2,600 2 6	341 12 3
d. Grazing and fodder grass	.....	13,754 8 6	4,938 2 9	85,032 10 1	1,01,883 4 8	39,289 11 4
e. Other minor produce	.....	4,901 15 6	(D) 2,267 9 11	1,308 4 0	8,098 15 6	1,369 10 6
III. Drift and Waif wood and confiscated Forest Produce	.....	494 1 6	804 7 4	396 6 6	823 7 9	103 14 2
IV. Revenue from Forests not managed by Government—						
a. Duty on foreign timber and other forest produce	.....	.....	.....	14,176 6 3	9,410 2 9	.....
b. Revenue from shared and private forests	.....	613 0 7	1,635 7 1	.....	.....	.....
V. Miscellaneous—						
a. Fines and forfeitures	.....	8,615 5 7	4,213 7 8	.....	.....	.....
b. Refunds	.....	108 15 4	1 10 6	0 4 0	50 7 2	0 4 0
c. Other sources	3 8 0	(D) 4,687 12 3	1,561 1 9	6,832 9 0	7,762 0 1	830 0 10
TOTAL REVENUE ...	3 8 0	3,05,482 14 11	1,27,440 3 9	1,50,811 4 2	2,02,943 3 5	57,410 12 10
EXPENDITURE.						
A.—CONSERVANCY AND WORKS.						
I. Timber and other produce removed from the Forests by Government Agency—						
a. Timber ...	.....	2,346 3 8	986 8 6	1,338 10 0	4,157 15 1	1,261 3 0
b. Firewood and charcoal	.....	633 5 0	0 4 0	2,999 2 0	1,835 10 1	.....
c. Bamboos	.....	.....	.....	.....	10 0 0	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	497 7 8	977 11 10	62 9 3	.....	851 3 9
II. Timber and other produce removed from the Forests by Consumers or Purchasers—	.....	6,363 1 4	3,856 10 0	6,304 15 3	5,815 5 9	1,890 3 0
III. Drift and Waif wood and confiscated Forest Produce—	.....	36 13 6	40 5 8	32 1 3	0 15 0	2 4 3
IV. Revenue from Forests not managed by Government—						
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....
V. Rent of leased Forests and payments to shareholders in Forests managed by Government—	.....	.....	639 14 0	.....	.....	23 0 10
VI. Live Stock Stores, Tools and Plant—						
a. Purchase of cattle	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant	541 0 0	103 11 10	83 1 4	.....	82 9 3	139 4 3
VII. Communications and Buildings—						
a. Roads and bridges	.....	.....	.....	.....	.....	49 14 6
b. Buildings	.....	747 9 0	2,315 8 0	154 0 0	888 5 0	1 6 6
c. Other works	.....	.....	22 8 0	.....	.....	37 11 0
VIII. Demarcation, Improvement, and extension of Forests—						
a. Demarcation	.....	4,898 8 3	248 12 11	227 4 3	7,896 6 1	2,020 3 0
b. Compensation for land and rights	.....	.....	12 0 0	4,797 15 1	381 0 0	688 5 4
c. Surveys and working plans	.....	(C) 905 10 2	15,945 9 5	80 15 9	378 6 6	(C) 886 13 4
d. Sowing and planting	.....	782 5 5	1,030 9 9	74 12 9	604 10 2	2,024 8 10
e. Protection from fire	.....	2,364 0 9	715 14 0	176 0 0	226 6 0	.....
f. Other works	.....	2,523 6 0	1,779 5 1	.....	.....	3,348 0 9
IX. Miscellaneous—						
a. Refunds	.....	.....	.....	.....	.....	.....
b. Law charges	.....	.....	45 1 10	.....	2 4 0	.....
c. Other charges	26 4 0	440 7 10	428 6 7	329 13 10	917 11 5	104 1 8
TOTAL A.—CONSERVANCY AND WORKS ...	567 4 0	24,452 10 5	29,128 2 11	16,578 3 5	22,997 8 4	13,330 9 6
B.—ESTABLISHMENTS.						
I. Salaries—						
a. Conservators	18,000 0 0	.....	.....	.....	.....	.....
b. Superior officers	1,100 0 0	9,036 10 8	7,880 10 3	10,800 0 0	6,005 0 0	6,911 6 4
c. Subordinate Forest and Depôt Establishments	.....	25,811 13 4	24,782 4 6	23,337 15 2	23,710 4 7	23,965 8 2
d. Office Establishments	6,672 6 4	6,123 10 8	3,302 13 4	2,113 9 7	2,551 4 8	2,131 4 9
e. Deputation and special allowances	483 0 0	120 0 0	.....	561 10 6	.....	...
II. Travelling allowances—						
a. Conservators	2,400 0 0	.....	.....	.....	.....	.....
b. Superior officers	300 0 0	3,022 4 2	2,477 6 0	1,822 5 2	1,806 9 10	1,800 0 0
c. Subordinate Forest and Depôt Establishments	.....	968 10 5	1,086 3 8	1,640 15 4	1,389 9 3	1,660 4 1
d. Office Establishments	1,641 0 10	965 2 3	993 3 4	753 14 3	847 12 8	779 5 7
III. Contingencies—						
a. Stationery	23 6 0	389 0 8	389 2 10	372 0 7	350 12 1	380 3 0
b. Carriage of tents and records	456 5 6	406 12 3	386 1 6	131 13 6	261 13 6	157 13 0
c. Rents, rates and taxes	480 0 0	232 10 0	172 6 8	300 0 0	296 9 2	312 0 0
d. Pay of Police Guards	.....	.....	.....	.....	.....	.....
e. Official Postage	440 7 0	661 6 0	874 10 0	675 9 0	778 5 0	736 3 0
f. Sundries	2,170 8 1	236 4 11	308 6 8	492 12 7	941 0 10	146 10 9
Payments to Officers of other Provinces	1,240 11 3	.....	.....	.....	.....	.....
TOTAL B.—ESTABLISHMENTS ...	35,407 13 0	45,014 4 11	42,553 5 1	43,002 9 8	38 939 1 7	38,980 10 8
GRAND TOTAL OF EXPENDITURE ...	35,975 1 0	67,466 15 4	71,681 8 0	59,580 13 1	61,936 9 11	52,311 4 2

(D).—Add Revenue II *e* (South Thána) Rs. 1 11 8 } Amounts of revenue remitted to the Treasury but left unaccounted for by the Divisional Forest
V *a* (North Thána) „ 3 6 0 } Officer, adjusted as per Treasury account by credit to Revenue and debit to Forest Remittances.

(C).—North Thána ... ... Rs. 24
South do. ... ... „ 597
Násik ... ... „ 49
Ahmednagar ... ... „ 16
Poona ... ... „ 317
Sholápur ... ... „ 96
} Rs. 1,099. Amount of percentage cost of mathematical instruments supplied to the Bombay Forest Survey Party and charged to Provincial Governments now adjusted by credit to India and debit to A. VIII *e* of these divisions

Forest Department, Accountant General's Office,
Bombay, dated 10th March 1893.

F.

NORTHERN CIRCLE.

Divisions for 1891-92 including Journal Entries.

Násik Division.	Poona Division.	Sátára Division.	Sholápur. Division.	Surat Division.	Panch Mahále Division.	Working Plans Division.	Total for 1891-92.	Budget Estimate.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
3,102 12 2	26,129 8 6	13,618 0 9	90 7 3	48,136 1 1	4,197 2 0	.....	1,67,391 1 2	2,17,840 0 0
3,794 11 6	1,796 4 0	4,229 9 9	1,293 6 3	500 8 0	3,718 5 0	.....	41,749 3 9	43,750 0 0
.....	.....	.....	.....	.....	1 8 9	.....	59 8 0	.....
3 11 0	0 8 6	.....	17 9 0	.....	.....	.....	21 12 6	.....
30 8 0	.....	19,400 9 2	16 5 0	.....	.....	.....	28,425 4 2	27,900 0 0
33,488 7 6	234 11 3	801 0 6	175 11 9	33,319 8 5	55,230 5 2	.....	4,83,366 7 4	4,90,130 0 0
1,381 2 0	8,315 0 1	467 8 7	4,337 10 0	786 13 0	2,294 7 0	.....	42,327 3 0	24,060 0 0
4,701 15 3	1,540 4 7	329 1 9	.....	16,306 4 7	1,660 10 6	.....	50,305 15 7	42,050 0 0
67,596 7 1	47,373 0 6	44,783 5 3	23,689 13 5	995 15 0	6,005 11 0	.....	4,35,922 9 2	3,45,250 0 0
4,544 6 5	7,413 9 0	3,339 10 6	541 3 3	2,224 15 6	1,042 2 0	.....	37,850 6 1	34,100 0 0
116 9 9	260 2 7	103 2 1	29 2 3	506 7 1	172 10 9	.....	3,814 7 9	3,570 0 0
.....	.....	.....	.....	.....	16 0 0	.....	23,602 9 0	30,160 0 0
.....	294 5 7	.....	.....	645 2 10	.....	.....	3,188 0 1	4,250 0 0
264 5 9	258 7 11	52 13 4	16 12 10	.....	124 15 9	.....	13,546 4 10	5,150 0 0
15 15 5	295 2 6	30 4 3	22 12 7	(A) 301 0 5	13 11 3	.....	840 7 5	10 0 0
3,472 7 0	1,278 0 2	1,468 10 11	409 15 0	877 9 5	1,125 6 4	2 8 0	30,311 8 9	11,180 0 0
1,22,513 6 10	95,189 1 2	88,641 12 10	30,640 12 7	1,04,589 4 4	77,102 15 9	2 8 0	13,62,731 12 7	12,89,000 0 0
206 4 10	3,087 9 3	1,460 15 6	5 8 0	14,714 12 8	996 3 9	.....	30,570 14 4	31,585 0 0
1,149 15 7	355 7 9	1,342 14 0	100 3 0	.....	.....	.....	8,416 13 5	9,250 0 0
.....	.....	.....	.....	1 6 0	.....	.....	11 6 0	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
40 2 1	29 12 5	5,090 12 11	37 10 4	.....	.....	.....	7,596 11 3	9,440 0 0
3,075 11 1	924 1 7	1,073 14 6	649 9 3	2,667 7 10	880 7 0	.....	33,301 7 10	31,325 0 0
6 8 0	4 7 0	.....	.....	1 15 9	3 12 6	.....	129 2 11	250 0 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	202 6 1	.....	.....	.....	.....	.....	202 6 1	200 0 0
4 15 0	2,110 4 7	3,733 12 5	.....	12,995 3 6	.....	.....	19,507 2 4	17,750 0 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
782 15 0	1,099 10 3	729 9 6	18 3 0	24 2 0	100 6 0	.....	3,764 8 5	350 0 0
.....	.....	.....	12 6 0	656 13 3	.....	.....	719 1 3	1,550 0 0
494 3 0	75 5 0	36 1 0	.....	1,304 7 4	270 9 0	.....	6,287 6 4	10,035 0 0
.....	.....	.....	.....	146 3 3	.....	.....	206 6 3	500 0 0
5,124 11 11	4,074 14 1	2,107 5 0	397 3 7	2,161 9 7	723 1 5	.....	29,890 0 1	30,800 0 0
120 0 0	11,759 1 1	94 4 0	851 1 6	1,869 0 0	872 15 10	.....	21,245 10 10	20,225 0 0
(C) 1,663 3 11	(C) 8,782 13 10	440 12 0	(C) 2,787 4 6	267 1 10	546 8 10	6,947 2 6	30,634 4 7	66,490 0 0
1,236 2 9	1,644 0 10	665 14 11	435 11 1	852 14 4	258 12 7	.....	9,620 7 5	14,150 0 0
127 7 6	11 4 0	.....	.....	43 5 3	2 0 0	.....	3,666 5 6	4,300 0 0
121 0 6	3,854 14 2	198 12 6	1,448 2 5	16 9 3	.....	.....	13,090 2 8	13,040 0 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	13 5 1	3 8 0	.....	.....	.....	.....	64 2 11	.....
1,832 3 3	—128 0 0	1,279 2 10	63 12 8	208 6 10	—6 13 0	.....	5,495 9 11	29,380 0 0
15,995 8 5	37,901 5 0	18,275 11 1	6,806 11 4	37,931 6 3	4,507 15 2	6,947 2 6	2,33,420 2 4	2,90,430 0 0
.....	.....	.....	.....	.....	.....	.....	18,000 0 0	18,000 0 0
11,583 9 2	14,491 15 9	9,550 0 0	6,600 0 0	3,271 12 0	6,875 0 0	9,600 0 0	1,03,385 15 5	1,08,890 0 0
32,816 4 10	34,343 10 5	27,754 11 1	12,646 5 9	8,703 9 1	11,898 6 9	.....	2,40,169 13 8	2,64,716 0 0
2,477 1 3	2,602 14 11	2,566 14 7	1,753 10 3	2,157 8 8	1,875 9 11	1,027 4 9	34,256 1 3	33,840 0 0
.....	.....	.....	.....	.....	.....	.....	1,164 10 6	1,741 0 0
.....	.....	.....	.....	.....	.....	.....	2,400 0 0	2,400 0 0
2,552 8 0	2,517 1 1	2,405 15 9	1,800 0 0	1,008 4 6	1,652 9 8	1,800 0 0	25,865 6 11	26,640 0 0
2,137 2 3	1,612 10 2	1,857 0 5	877 1 4	811 13 4	682 11 11	.....	14,774 2 2	15,000 0 0
922 9 1	947 5 7	866 10 6	639 8 6	785 11 7	648 10 9	331 3 5	11,142 2 4	12,800 0 0
501 0 0	392 12 6	577 7 5	213 4 7	201 4 6	225 14 2	.....	4,016 4 4	4,120 0 0
489 13 4	282 8 6	359 7 0	95 3 6	217 9 9	179 2 0	.....	3,424 7 4	3,250 0 0
119 0 0	252 0 0	47 8 0	31 8 0	100 0 0	.....	.....	2,843 9 10	2,480 0 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
1,175 14 0	9 7 0 6	990 6 0	388 15 0	388 8 6	287 3 3	.....	8,304 2 3	6,700 0 0
459 1 11	269 8 9	283 11 11	56 12 6	87 4 11	133 14 7	.....	5,585 13 0	6,199 0 0
.....	.....	.....	.....	.....	.....	.....	1,240 11 3	.....
55,012 15 10	58,619 2 5	47,259 12 8	25,002 5 5	18,663 1 10	23,859 3 0	12,758 8 2	4,85,072 14 3	5,06,686 0 0
								7,97,116 0 0
								8,716 0 0
71,008 8 8	96,520 7 5	65,535 9 3	31,809 0 0	56,594 8 1	28,367 2 2	19,705 10 8	7,18,493 0 7	7,91,400 0 0

(A.)—Rs. 300 amount erroneously debited to 1 Refunds (Forest) instead of to Deposits in the accounts of the Surat Division for March 1891 now adjusted by credit to Revenue V *b*, and debit to Deposits.

No. $\frac{F}{33516}$

Forwarded to the Conservator of Forests, Central Circle, in continuation of this office memorandum No. $\frac{F.}{12543}$, dated 3rd August 1892.

F. C. BREWIN,
Chief Superintendent.

APPENDIX G.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Supplementary Annual Account Current for the year 1891-92 including Journal Entries.

	Rs. a. p.	Rs. a. p.
To opening balance	.....	678 8 6
„ I.—Land Revenue, Miscellaneous— Other items	.....	1,975 14 0
„ VIII.—Assessed Taxes—Income Tax— Deductions by Government from salaries and pensions ...	.....	4,305 0 1 (A & D)
„ IX.—Forest (as per Summary) ...	.....	13,62,731 12 7
„ XII.—Interest—Interest on arrears of revenue	.....	189 7 11
„ XVI.—Law and Justice— Fines, fees, &c.— Magisterial fines	.....	100 0 0
„ XXIII.—Stationery and Printing— Stationery receipts— Sale-proceeds of stationery boxes	.....	2 2 0
Other Press Receipts— Government Central Press ...	.....	25 0 0
„ XXV.—Miscellaneous— Unclaimed Deposits ...	.....	(B) 100 0 0
„ Revenue Deposits (Forest)	.....	67,619 14 5
„ Cheques and Bills (Departmental Cheques)— Forest	.....	7.85,007 4 6

	Rs. a. p.	Rs. a. p.
By 1.—Refunds and Drawbacks— Refunds—Divided Heads, Forest ...	.....	2,546 15 4
„ 11.—Forest (as per Summary) ...	.....	(C) 7,18,493 0 7
„ 19.—Law and Justice— Jails, District Jails, Contingencies	.....	.....
„ 30.—Stationery and Printing— Government Central Press Contingencies...	.....	.....
Miscellaneous	.....	0 5 0
„ Revenue Deposits (Forests)	.....	(A&B) 56,042 4 8
„ Cheques and Bills (Forests Cheque cancelled)	.....	2,755 7 2
„ Advances Recoverable—		
Forest advances	4,39,120 7 2	
Tentage advances	400 0 0	
Objection Book advances... ...	2,241 12 5	
		4,41,762 3 7
„ Cash Recoveries	.....	14,971 9 2
„ Forest Remittances—	(D)	
Remittances to Treasuries... ...	14,25,275 1 6	
Inter-divisional Transfers ...	82,802 11 3	
Inter-departmental Transfers ...	4,362 13 7	
		15,12,440 10 4
„ Accounts Current— Account between India and Bombay— III.—Items adjustable by India—		
„ Bengal Uncovenanted Service Family Pension Fund...	.....	23 10 0
„ Do. Military Orphan Fund ...	.....	47 0 0

„ Advances Recoverable—		
Forest advances	4,37,021 8 4	
Tentage advances	133 . 5 0	
Objection Book advances	1,903 12 10	
		4,39,058 10 2
„ Cash Recoveries	.....	14,971 9 2
„ Forest Remittances—		
Remittances to Treasuries	452 1 3	
Inter-divisional Transfers	47,861 5 8	
Inter-departmental Transfers ...	23,398 0 0	
		71,711 6 11
„ Bombay Uncovenanted Service F. P. Fund—		
Widows' Branch	.....	1,981 7 7
„ Account between India and Bombay—		
III.—Items adjustable by India—		
Bengal Military Fund	.....	450 0 0
Bengal Military Orphan Fund ...	.....	250 10 4
Bengal Uncovenanted Service Family Pension Fund	.....	23 10 0
Miscellaneous...	.....	(C) 1,101 0 0
„ Account between Bombay and Public Works Department, Bombay—		
IV.—Payments into Treasuries by Civil Officers on account of Public Works Department	.....	441 5 2
Suspense	.....	3 0 0
Total ...	.....	27,52,727 11 4

„ Account between Bombay and Public Works Department, Bombay—(Ordinary Branches)—		
IV.—Items adjustable by Public Works Department—Inter-departmental charges	.....	419 8 0
„ Account between Bombay and Public Works Department.—(Railway Branch) Railway—		
IV.—Items adjustable by Public Works Department	.....	.....
Suspense	.....	3 0 0
Closing balance	.....	3,222 1 6
Total ...	.....	27,52,727 11 4

No. $\frac{F}{33302}$

Forwarded to the Conservator of Forests, Central Circle, in continuation of this office memorandum No. F.—12542, dated 3rd August 1892.

A.B.C. & D. (*Vide* remarks printed on the reverse.)

Accountant General's Office,
Bombay, 8th March 1893.

F. C. BREWIN,
Chief Superintendent.

(A) Rs. 300. Amount erroneously debited to 1 Refunds, Forests, instead of to Deposits in the accounts of the Surat Division for March 1891 now adjusted by credit to Revenue V *b* and debit to Deposits.

(B) Rs. 100. Amount outstanding on account of Deposit against the name of Colonel Beaumont in the Forest Account of the South Thána Division since June 1888, adjusted as per letter to the Divisional Forest Officer, South Thána, No. F.—18038, dated 3rd October 1892, under Article 255 of the Civil Account Code, 5th Edition.

(C) Rs. 1,099. Amount of percentage for cost of Mathematical Instruments supplied to the Bombay Forest Survey Party, and charged to Provincial Governments as per Comptroller General's Statement No. 1422, dated 6th December 1892 now adjusted by credit to India and debit to the Service head A. VIII *c*. of the following Divisions:—

	Rs.
North Thána	24
South Thána	597
Násik	49
Ahmednagar	16
Poona	317
Sholápur...	96
	1,099

(D) Revenue II *e*. Rs. 1 11 8 (South Thána).
„ V *c*. „ 2 6 0 (North Thána).
4 1 8

Amounts of revenue remitted to Treasury but left unaccounted for by the Divisional Forest Officers adjusted as per Treasury Accounts by credit to "Revenue" and debit to "Forest Remittances."

SOUTHERN CIRCLE.

No. 3123 A. of 1892-93.

From

R. C. WROUGHTON, Esquire,

Acting Conservator of Forests, Southern Circle;

To

T. D. MACKENZIE, Esquire,

Chief Secretary to Government,

Revenue Department,

Bombay.

Camp Belgaum, 15th September 1892.

Sir,

I have the honour to submit herewith the Forest Administration Report of the Southern Circle for the year 1891-92, together with its subsidiary statements.

I have the honour to be,

Sir,

Your most obedient Servant,

R. C. WROUGHTON,

Acting Conservator of Forests, Southern Circle.

Through the Commissioner, Southern Division.

B 693—80—a

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FOREST ADMINISTRATION REPORT, SOUTHERN CIRCLE, FOR 1891-92.

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FOREST ADMINISTRATION REPORT OF THE SOUTHERN CIRCLE, BOMBAY PRESIDENCY, FOR THE YEAR 1891-92.

INTRODUCTION.

The year has been an eventful one on account of the general distress that prevailed owing to a scanty rainfall throughout the monsoon of 1891. This scarcity has, during a greater part of the year, prevailed over the whole Southern Marátha Country. In amelioration of the calamity, the forests of the several districts were opened to free grazing.

2. There have been no changes in the system of administration hitherto observed in this Circle and recorded in past years.

3. The area finally settled in Kánara during the year under report amounted to 27 square miles. Settlement inquiries connected with 277 square miles in Kánara and 27 square miles in Dhárwár were conducted during the year.

4. The Forest Survey Party was working in Kánara and Dhárwár, and 300 square miles were surveyed at a cost of Rs. 35,138.

5. The work accomplished by the Working Plan Parties covered 116 square miles in the forests of the Northern Division of Kánara, for a portion of which the working plans will be submitted during the current year.

6. The permanent establishments underwent no change during the year, except in the Kolába Division, to which were added the two Ranges of Karjat and Khálápur along with their establishment, from the South Thána Division of the Northern Circle, which is also a notable occurrence of the year under report.

7. Protection against forest offences was fair, the percentage of the offences prosecuted being 22 against 26 of the preceding year. Eight hundred and three cases were compounded under Section 67 of the Forest Act, and a sum of Rs. 2,216 was recovered as compensation for damages. One hundred and five magisterial cases were pending trial at the close of the year; of these no less than 97, for pollarding reserved trees in unsettled Government forests, appertain to the Southern Division of Kánara.

8. The number of cattle impounded for trespassing in closed forests amounted to 4,283.

9. Special measures of fire protection were adopted as usual in the three Divisions of Kánara, in Belgaum and in Dhárwár. The results compare favourably with those of the previous years in spite of a dry and unfavourable year.

10. Natural reproduction, though not everywhere satisfactory, appears to have been as good as in the previous year, and this was benefited by the special measures of fire protection.

11. "Communications and Buildings" received attention as usual, and a sum of Rs. 6,809 was spent under this head during the year under report.

12. As regards forest revenue, the year has not been a prosperous one as was only to be expected, owing to the prevailing scarcity which in a great measure affected the market in the timber-consuming districts.

13. The gross revenue of the year was Rs. 11,47,707, which may be called very fair considering the general conditions of the year.

CHAPTER I.

AREA AND BOUNDARIES

14. The following table shows the forest area of the Southern Circle for 1891-92:—

Names of Districts.	Area on 1st April 1891		Added during the year.		Excluded or transferred to other heads.		Area on 31st March 1892.		Total Forest Area.
	Reserved.	Protected.	Reserved.	Protected	Reserved	Protected.	Reserved.	Protected.	
	Sq. m. A.	Sq. m. A	Sq. m. A.	Sq. m. A.	Sq. m. A.	Sq. m. A.	Sq. m. A	Sq. m A.	Sq. m. A.
Kánara	740 247	2,807 96$\frac{18}{40}$	13 371$\frac{5}{40}$	.	.	*13 *379$\frac{23}{40}$	754 75$\frac{5}{40}$	2,793 856$\frac{18}{40}$	3,547 434$\frac{18}{40}$
Belgaum ..	494 416$\frac{7}{10}$	196 571$\frac{28}{40}$	....	..	0 55	....	494 361$\frac{7}{10}$	196 571$\frac{28}{40}$	691 293$\frac{21}{40}$
Dhárwár ..	171 410$\frac{5}{40}$	260 258	....	..	..	....	171 410$\frac{5}{40}$	260 258	432 28$\frac{5}{40}$
Bijápur . ..	155 75$\frac{23}{40}$	89 409	....	..	.	....	155 75$\frac{23}{40}$	89 409	244 484$\frac{23}{40}$
Kolába	305 597$\frac{15}{40}$	57 569$\frac{16}{40}$	64 7	7 478	2 472	1 465	381 280$\frac{15}{40}$	63 552$\frac{15}{40}$	445 228$\frac{15}{40}$
			+14 154						
Ratnágiri ..	20 70$\frac{23}{40}$	....	....	.	..	....	20 70$\frac{23}{40}$	....	20 70$\frac{23}{40}$
Total ..	1,888 6$\frac{34}{40}$	3,411 624$\frac{23}{40}$	91 532$\frac{5}{40}$	7 478	2 527	15 204$\frac{23}{40}$	1,977 11$\frac{39}{40}$	3,404 257$\frac{38}{40}$	5,381 269$\frac{38}{40}$

* Of these 13 square miles 371 acres and 5 gunthás were made Reserved, and 8 acres and 34 gunthás disforested.

KÁNARA.

15. The changes in the area and classification of forests in Kánara are owing to the settlement of 17 villages of the Sirsi sub-division, where 13 square miles 371$\frac{5}{40}$ acres were notified under Section 19 of the Forest Act ("Reserved Forests"), and 12 square miles 556$\frac{5}{40}$ acres under Section 28 ("Protected Forests").

16. 8$\frac{34}{40}$ acres were disforested from the Protected Forests of Kumta under Government Notification No. 4812 of 16th July 1891.

17. Mr. R. T. Wingate continued to be Forest Settlement Officer, Kánara, until 31st January 1892, when he proceeded on furlough, and was succeeded by Mr. W. D. Sheppard, I.C.S. The former completed field work connected with 47 villages of Kárwár and 26 of Yellápur, having a forest area of 190·51 square miles and 87 square miles respectively. The final report on the former is reported to be in course of preparation, and that on the latter was submitted during the year.

18. The following area was notified under Section 4 of the Forest Act :—

Acres.	Gunthás.	
8,730	24	in Honávar.
322	31	in Sirsi.

19. The Demarcation Party under the Settlement Officer is reported to have completed the survey of a line dividing the Reserved from the Protected forests which were settled in the Sirsi and Kumta sub-divisions. The line measured, aggregated 90 miles 7 furlongs.

20. Seven miles of 30 feet lines, dividing Protected from Reserved forests, were cleared in the Mundgod sub-division and 18½ miles were cleared in Ankola, under the supervision of the Forest Officers. The average cost per mile amounted to Rs. 33.

21. Fair field-books, showing particulars of survey numbers and boundary marks for 12 villages in Kumta and 4 in Ankola, as well as maps, are reported to have been prepared for the use of the Village and Forest Officers.

BELGAUM AND DHÁRWÁR.

22. Mr. Gray was Forest Settlement Officer for Belgaum and Dhárwár till December, when he relinquished charge to Mr. Knight.

23. From the 1st April to the middle of May, Mr. Gray was at work in the Kalghatgi sub-division and completed the inspection of the forests there, aggre-

gating 27·59 square miles. He then took over charge of the Collector's office, Dhárwár, and retained it until the end of October, when he framed and submitted the final report on the Khánápur and Parasgad forests which he had inspected in the previous years.

24. After Mr. Knight took over the office from Mr. Gray he says he found himself unable to give any attention to settlement work, as he had to retain the charge of a very heavy revenue and magisterial office, of which he was not relieved until almost the close of the year.

BIJA'PUR.

25. The demarcation of the forest area of this Division still awaits sanction. Preparation of maps of the forest areas, which were reported on during the previous years, was commenced during the year under report.

KOLA'BA.

26. The changes appearing against Kolába in the table given in paragraph 14 above are owing to the two ranges of Karjat and Kháláپur having been transferred from the Northern to the Southern Circle.

27. The forest area of these ranges is 81 square miles 312 acres :—

	Square miles.	Acres.
Karjat	48	113
Kháláپur	33	229

28 The expenditure on account of settlement and demarcation during 1891-92, amounted to Rs. 26,400 as shown below :—

	Rs	Rs
Not charged to Forests.		
Allowances of the Forest Settlement Officer, Kánara ...	1,650	
Salaries and allowances of the Forest Settlement Officer, Belgaum and Dhárwár	14,252	
		15,902
Charged to Forests.		
Salaries and allowances of the establishments employed under the Forest Settlement Officer, Kánara, and contingencies	3,250	
Salaries and allowances of the establishments employed under the Forest Settlement Officer, Belgaum and Dhárwár, and contingencies	2,392	
Cost of demarcation	4,856	
		10,498
Total ...		26,400

29. The sums expended during the year under the following heads were :—

	Rs
A. Pay and allowances of the Forest Settlement and Demarcation Officers and of their establishments	21,070
B. Compensation	1,217
C. Miscellaneous expenditure	473
Total ...	22,760

30. The settlement of the year, which is represented by the above expenditure, comprises :—

	Rs.
26 square miles, 287 acres, finally sanctioned and settled ...	3,750
134 10 square miles, settlement in progress (areas for which field work has been completed)	19,010
Total ...	22,760

31. The cost per square mile of the settlement finally effected during the year was Rs. 141·7.

32. The total cost for settlement operations up to 31st March 1891, amounted to Rs. 2,76,022, and that on account of the area gazetted during 1891-92, to Rs. 3,750. The total area finally settled and gazetted up to the end of 1891-92 is 2,425·14 square miles, and the cost per square mile up to date comes to Rs. 115·3.

33. The following table shows the progress made in the settlement of the forests which were gazetted under Section 34 of the Forest Act :—

Name of Collectorate.	Class of Forests.	At the commencement of the year. Areas under Section 34 in which private rights have not been enquired into, settled or recorded.		Areas dealt with during the year and sanctioned by Government. Under Section 19, Chapter II of the Forest Act.		Areas dealt with during the year and sanctioned by Government. Under Section 28, Chapter IV of the Forest Act.		Area of Reserved Forests alienated under Section 26.		Area of Protected Forests disforested under Government orders.		At the end of the year. Areas under Section 34 in which private rights have not been enquired into, settled or recorded.	
		Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.
Kánara ..	Reserved ..	214	286	....		....		....		....		214	286
	Protected ..	2,369	207	13	371	12	556	....		0	9	2,312	611
Bijápur ..	Reserved ..	155	76	....		....		....		....		155	76
	Protected ..	89	409	....		....		....		....		89	409
Kolába .	Reserved ..	11	353	....		....		....		....		11	353
	Protected ..	....		....		....		....		....		....	
Total ..	Reserved ..	381	75	....		....		....		....		381	75
	Protected ..	2,459	36	13	371	12	556	....		0	9	2,432	380

34. The area remaining to be dealt with is :—

	Square miles.	Acres.
In Kánara, as detailed above	2,557	257
In Kolába (area of 4 villages of Nágothna notified under Section 34)	11	353
In Dhárwár (area already notified under Section 4) ...	266	286
In Belgaum (do. do. do.) ...	258	130
Total ...	3,093	386

35. The settlement of the Belgaum forests has been completed and reports submitted to Government, the last report on the Khánápur forests of that Division having been sent in with this office No. 1052, dated 30th May 1892.

36. In Bijápur, too, the settlement has been completed (paragraph 15 of the Administration Report for 1890-91). There, only lands aggregating 22 square miles 488 acres remain to be dealt with, if the proposals regarding them receive Government sanction.

37. An early demarcation and settlement of the forests in Kánara adjoining *supári* gardens is most desirable. A proposal was set on foot during the year for creating an additional Forest Settlement Office, but Government in their memorandum No. 101 of 7th January, 1892, expressed inability to spare an officer for the duty.

CHAPTER II.

SURVEYS AND WORKING PLANS.

I.—SURVEYS.

38. The Bombay Forest Survey Party continued the topographical survey, and 300 square miles are reported to have been surveyed at a cost of Rs. 35,138 during the survey year ending 30th September 1891, the cost per square mile for the 8″ scale being Rs. 112 against Rs. 83-8-4 of the year ending 30th September 1890.

39. The details of work done by the party in the several districts are given in the following table :—

District.	Scale.	Triangulation.			Traversing.			Details.			General Cost per square mile.	Remarks.
		Area in square miles.	Total Cost.	Cost per square mile.	Area in square miles.	Total Cost.	Cost per square mile.	Area in square miles.	Total Cost.	Cost per square mile.		
			Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p		Rs. a. p.	Rs. a. p.	Rs. a. p.	
North Kánara.	8"	340	3,637 11 10	10 11 2	354	4,611 13 9	...	2,699	23,829 11 3	...	.....	
							13 0 3	...	.....	88 4 7	112 0 0	140 square miles of triangulation and 85 square miles of traverse are in advance in the Yellápur, Mundgod and Sirsi tálukas.
Dhárwár ...	8"	...	.....	...	31	401 10 9	...	301	2,657 9 7	...	.....	Bankápur and Kalghatgi tálukas.
		340	3,637 11 10	...	385	5,013 8 6	...	300	26,487 4 10	...	25,138 9 2	

II.—WORKING PLANS.

40. During the year the two parties continued to work under one Divisional Forest Officer, Mr. Bell. Mr. Oliver proceeded on leave at the beginning of the year, and on return he was posted to the Northern Circle.

41. The work accomplished is shown in the table below :—

	Lines 10—20 feet broad.			Linear miles surveyed.	Posts fixed.	Test trees felled.	Number of Compartments formed.	Test Area estimated.	Area for which working plan has been formed.	Total Cost incurred.	Cost per Acre.
	Cleared of regrowth, &c.	Jungle cut and cleared.	Total cut and cleared.								
		Miles.	Miles.	Miles.	No.			Acres.	Acres.	Rs. a. p.	
Party I ..	..	138·47	138·47	142·42	1,080	..	74	3,550·02	42,633·30	28,449 15 9	..
Party II ..	..	83·05	83·05	75·51	1,585	..	56	2,072·48	31,850	21,001 9 8	..
									74,483	49,451 0 0	10·6

42. It will be seen from the above that the data necessary for the preparation of working plans have been prepared for 74,483 acres or 116 square miles of forests in the Northern Division of Kánara. The working plans for a portion of these forests will, it is expected, be submitted during the current year. Those for the area shown in paragraph 22 of the Administration Report for 1890-91 were submitted with this office No. 4716, dated 28th January 1892.

43. Each of the parties was worked by an Extra-Assistant Conservator; party No. I was under Mr. Haripad Mitra and party II under Mr. N. D. Satárawálá. The cause of decrease in the work done by the latter party was in a great measure owing to the fact that no coolies could be obtained in the jungles at the beginning of the season.

44. Certain special data required for preparing working plans for a great portion of the area shown in the above table, could not be collected owing to there being only one Divisional Officer in charge of the two parties, who was unable to keep pace with the preliminary work done by the two parties.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

ESTABLISHMENT.

45. Mr. Murray held charge of the Northern Division of Kánara in addition to his own (Belgaum), until 2nd May, when Mr. Talbot returned from furlough.

46. Mr. Stewart proceeded on sick leave on the 7th April 1891. He made over charge of Southern Kánara to Mr. Haselden, and Mr. Woodrow resumed it on the 10th May 1891.

47. Mr. Ryan was on privilege leave from 5th to 29th October, during which period Mr. Hight held charge of the Divisional Office, Bijápur, in addition to that of Dhárwár.

48. Mr. Murray went on privilege leave for three months, on the 9th October 1891, and relinquished charge of the Belgaum Division to Mr. Gleadow. When the former resumed his charge the latter proceeded to Dhárwár and there received charge of the Divisional Office from Mr. Hight, who went on 3 months' privilege leave on the 28th January 1892.

49. Mr. G. K. Betham handed over charge of the Kolába Divisional Office to Mr. Thánedár on the 21st May and proceeded on sick leave. The latter was relieved of the charge by Mr. Greatheed on 1st July 1891.

50. Mr. Oliver, who was on special duty connected with the demarcation of *dalhi* lands in Kolába, availed himself of 6 months' leave on private affairs from the 9th May 1891, and on return he was posted to the Northern Circle.

51. The only change in the *personnel* occurred in the Kolába Division, where 2 foresters and 60 guards were added to the establishment at a monthly cost of Rs. 533, with the two ranges of Karjat and Khálápur which were transferred from the Northern to the Southern Circle.

52. The cost of establishment of the Southern Circle during 1891-92 amounted to Rs. 2,67,816 against Rs. 2,66,529 of the year before.

53. A Committee assembled at Bombay in March 1891, composed of the Inspector-General of Forests to the Government of India, the Conservator of Forests, Bengal, and several officers of this Presidency, to discuss the reorganization proposals of the subordinate staff, submitted by the Committee which sat at Poona during the rains of 1889. The original proposals were subjected to a further reduction. In consequence of this, revised proposals were called for in Government Resolution No. 4964 of 21st July 1891. These were submitted in December 1891.

BREACHES OF THE LAW.

54. The number of prosecutions instituted is as follows :—

Division.	1890-91.	1891-92.
Northern Division of Kánara	17	21
Central Division of Kánara	8	20
Southern Division of Kánara	18	103
Belgaum	49	36
Dhárwár	15	7
Bijápur	11	8
Kolába	49	122
Ratnágiri	27	29
Total ...	194	346

55. The number disposed of by Magistrates is :—

No.	Divisions.	1890-91.			1891-92.			Percentage of failures.	
		Cases in which conviction was obtained.	Cases in which conviction failed.	Total.	Cases in which conviction was obtained.	Cases in which conviction failed.	Total.	1890-91.	1891-92.
1	Northern Division, Kánara ..	14	3	17	10	11	21	18	52
2	Central do. do. ..	8	1	9	16	4	20	11	20
3	Southern do. do. ..	7	10	17	5	2	7	59	28
4	Belgaum	31	21	52	27	12	39	40	31
5	Dhárwár	12	3	15	6	1	7	20	14
6	Bijápur	7	3	10	8	...	8	30	.
7	Kolába	44	6	50	103	19	122	12	16
8	Ratnágiri	23	4	27	21	7	28	15	25
	Total ...	146	51	197	196	56	252	26	22

56. The number of cases which remained awaiting trial at the close of the year under report was 105 against 11 of the year before.

57. The increase in the number of prosecutions is met with chiefly in the Southern and Central Divisions of Kánara and in Kolába.

58. In Central Kánara and Kolába the increase was, respectively, due to illicit cutting of reserved kinds of trees for *ráb* and to illicit cultivation of *dálhi*. In the former Division there were 11 *ráb* cases.

59. In the Southern Division of Kánara the increase amounted to 85, and it was owing to garden cultivators, in defiance of orders, having pollarded reserved kinds of trees for *soppu*. No less than 97 of these *soppu* cases were pending at the close of the year under report. The Divisional Forest Officer reports that these offences were of so grave a nature that proceedings were delayed till the Assistant Collector visited the táluka.

60. One case was again let off in Siddápur, because the Magistrate held that prosecution was not legal till the forests had been settled. The case was sent to the District Magistrate for trial on the strength of the opinion of the Remembrancer for Legal Affairs (Government Resolution No. 6728, dated 24th September 1890), but that officer referred it to Government (Resolution No. 6425, dated 18th September 1891).

61. The speedy settlement of the Siddápur forests and the remaining villages in Sirsi is urgently called for, as by the last quoted Government Resolution, Mr. Woodrow says, forest protection is at present almost at a stand-still. "Nearly the whole of the Siddapur Táluka," he adds, "is occupied by garden cultivators, the jungles are already to a great extent destroyed, and as we can at present do nothing to save them from further destruction an early settlement is the only chance of there being any forests, except evergreens."

62. The large percentage of failures in the Northern Division of Kánara was owing to certain cases of theft of wood in "Reserved" forests, in which the offenders refused to pay compensation under Section 67 of the Forest Act, and were, therefore, taken into Court.

63. Details of cases of misappropriation of timber and minor produce, as required by Government letter No. 6881, dated the 29th August 1892, are given in Statement 50A, appended.

64. The cases dealt with under Section 67 of the Forest Act were as shown in the following statement:—

No.	Divisions.	1890-91.				1891-92.			
		Total number of cases disposed of.	Number of cases commuted.	Number discharged.	Amount of compensation recovered in cases commuted.	Total number of cases disposed of.	Number of cases commuted.	Number discharged.	Amount of compensation recovered in cases commuted.
					Rs.				Rs.
1	Northern Division of Kánara ...	22	21	1	196	8	8	...	49
2	Central Division of Kánara ...	56	53	3	157	61	60	1	197
3	Southern Division of Kánara ...	98	98	...	299	45	45	...	91
4	Belgaum	361	361	...	248	210	210	...	351
5	Dhárwár	52	52	...	138	65	65	...	180
6	Bijápur	76	76	...	261	49	49	..	215
7	Kolába	266	266	...	1,033	167	167	..	546
8	Ratnágiri	121	121	...	420	199	199	...	587
	Total ...	1,052	1,048	4	2,752	804	803	1	2,216

65. Increase occurs only in the Central Division of Kánara and Dhárwár, and it is due (*a*) to illegal lopping of trees for *soppu* and (*b*) to unauthorized felling of wood.

66. On the other hand, there is a marked diminution in the Belgaum Division, where there was a decrease in the number of offences on account of firewood removed from the forest without passes, due to somewhat greater severity in dealing with offenders.

67. The large decrease in Kolába is apparently owing to a greater proportion of cases having been taken into Court.

68. No appeal was made to the Conservator against any of the decisions passed in the cases compounded.

69. Statement 50 B shows the number of cases in which damages amounting to one rupee, two rupees, and so on up to the maximum, were recovered under Section 67 of the Forest Act, during the year.

70. A statement showing the number of cases compounded and taken into Court is given below :—

No.	Division.	Taken into Court		Compounded under Section 67.		Total number of cases.	
		1890-91.	1891-92.	1890-91.	1891-92.	1890-91	1891 92.
1	Northern Division of Kánara ...	17	21	22	8	39	29
2	Central Division of Kánara ...	8	20	56	60	64	80
3	Southern Division of Kánara ...	18	103	98	45	116	148
4	Belgaum	49	36	361	210	410	246
5	Dhárwár	15	7	52	65	67	72
6	Bijápur	11	8	76	49	87	57
7	Kolába	49	122	266	167	315	289
8	Ratnágiri	27	29	121	199	148	228
	Total ...	194	346	1,052	803	1,246	1,149

71. The cases taken into Court during 1891-92 amounted to 346, and 11 were pending at the close of the year 1890-91. Of these, 252 were disposed of by Magistrates and 105 remained undecided at the close of the year under report.

72. The number of animals impounded during 1891-92 in open and closed forests is given below :—

No.	Division.	Number of Animals impounded.		Total.	Remarks.
		In open Forests.	In closed Forests.		
1	Northern Division of Kánara ...	...	173	173	
2	Central Division of Kánara ...	346	194	540	
3	Southern Division of Kánara ...	121	122	243	
4	Belgaum	1,892	1,239	3,131	
5	Dhárwár	686	1,680	2,366	
6	Bijápur	1,279	...	1,279	
7	Kolába	...	763	763	
8	Ratnágiri	119	112	231	
	Total ...	4,443	4,283	8,726	

73. *Civil Suits.*—In the civil suit Gopi Mahábleshwarbhat *vs.* Sheshu Manju (paragraph 52 of the Administration Report for 1882-83) the High Court on appeal awarded the plaintiff one rupee nominal damages, each party to bear his own cost.

FOREST FIRES.

74. During the year special measures of fire protection were adopted as usual in the three Divisions of Kánara and in Belgaum and Dhárwár. In some of the divisions a larger area was fire-traced than in the year before.

75. In Bijápur no area was specially protected. The Divisional Officer reports that as the season was exceptionally dry and there was no grass on the hills after January, there was no need to fire-trace the forests, and that it would have been impossible to adopt any measures. He further says that no fire entered any of the forests including *Kurans.*

76. In Kolába no steps appear to have been taken, and the Divisional Officer reports "it was considered unnecessary for any special measures to be taken," except in the two newly added ranges of Karjat and Khálápur, where, out of 19,407 acres attempted, 774 acres are reported to have been burnt.

77. The following statement shows the results of special protection reported for the past years :—

Division.	Area in Square Miles.			Proportion of failures to area attempted.	Cost.		Proportion of area under fire protection to total area of Reserves.
	Attempted.	Failures.	Protected.		Per Square mile protected.	Per acre protected.	
					Rs.	Pies.	
Northern Division, Kánara	578·11	3·50	574·61	·06	18·89	5·6	...
Central Division, Kánara.	162·57	6·12	156·45	3·77	21·15	6·3	...
Southern Division, Kánara	45·99	9·08	36·91	19·74	5·79	1·7	...
Belgaum	174·31	3·53	170·78	2·02	8·40	2·5	...
Dhárwár	55·65	2·06	53·59	3·70	10·39	3·1	...
Kolába	30·32	1·20	29·12	3·95	3·60	1·07	...
Total in 1891-92 ...	1,046	25	1,021	2·39	16·14	4·8	53·2
Total in 1890-91 ...	1,059	9	1,050	0·8	14·07	4·2	56
Increase or Decrease in 1891-92	—13	+16	—29	+1·59	+2·07	+·6	—2·8

78. A sum of Rs. 1,056, which in Central Kánara was due for operations conducted during 1890-91, was actually paid during the year under report. This has consequently increased the cost per square mile.

79. The following areas are estimated to have escaped fire without adoption of special measures :—

	Acres.
Northern Division of Kánara	388,532
Central do. do.	504,341
Southern do. do.	694,919
Belgaum Division	324,393
Dhárwár do.	234,701
Bijápur do.	137,466
Kolába do.	251,340
Ratnágiri do.	12,656
Total ...	2,548,348

80. During the previous season, the area reported as having escaped fire without the taking of special measures amounted to 4,094 square miles, or 79 per cent. of the whole area. During the year under report it amounted to 3,982 square miles, or 74 per cent. of the whole area.

Northern Division of Kánara.

81. The results of the fire protection are reported to have been satisfactory during the hot season which was an exceptionally dry and long one. No rain fell from January till May, and protection-lines and traces had to be opened much earlier than usual. There was one case of fire in the dry bamboo jungles between Tátwhál and Sámbráni, which calls for special notice. On five different occasions the forests were set on fire by the villagers for grazing purposes, and, as the dead bamboos were as dry as tinder, these fires were put out with great difficulty and not before 2,000 acres were burnt.

Central Division of Kánara.

82. Fire protection in the Yellápur range is reported to have been very successful. In Mundgod, where cattle from plain districts were brought to graze, the area burnt is attributed partly to lateness in commencing operations and partly to incendiarism. It is also reported that as long as the distressed cattle were grazing no fires took place, but after they had left, a fire broke out in different parts three times in one day, and if it had not been for the exertions of the Range Officer and his guards much more would have been burnt.

Southern Division of Kánara.

83. The cause of the fires is ascribed to the spreading of the fires lit by the villagers in their *bén* (adjuncts of cultivation) numbers, and another, the chief one, is that people wilfully set fire to obtain an early crop of grass.

84. The results of fire-protection in the Belgaum Division compare very favourably with those of the previous years, in spite of a very dry and unfavourable year. A successful attempt was made to prevent the annual fires which sweep across the forests to the west. Of the area specially protected, 1,558 acres were burnt in Khánápur and 600 acres in Belgaum. The area was filled with long dry grass which was very inflammable.

Dhárwár.

85. Although distressed cattle were admitted into all the closed portions of the Reserves except plantations, the increase in the area burnt was comparatively small.

86. Mr. MacGregór records that during his hot-weather tour of 1892 he particularly noted the rareness of fires in the Central and Northern Divisions of Kánara. Even in the areas not specially protected fires were much less frequent than usual.

GRAZING AND FENCING.

87. The year's revenue from grazing shows an increase of Rs. 18,678; it amounted to Rs. 91,487 against 72,809 of the previous year. The increase occurs mostly in Dhárwár and Belgaum, and is due to the revised scale of fees levied under the Grazing Regulations sanctioned in Government Resolution No. 3595 of 23rd May 1890, now first introduced.

88. Owing to the prevailing scarcity of fodder all the forests were thrown open for free-grazing. But these orders were issued two or three months after the new system was introduced. Had the regulations been uniformly carried out, the revenue would have been still larger. The new rules could not be brought into force in Bijápur, owing to the failure of the rainfall and consequent fodder famine.

89. An increase is also noticeable in the grazing receipts of Kánara, where a higher rate of fee was sanctioned for outside cattle, and those belonging to professional graziers. Cattle from the plain districts were driven into the Kánara forests, and there they were permitted freely to graze in "Protected" forests, fees only being collected from the wealthy owners. Orders were received that, if necessary, these cattle should also be allowed to graze in the "Reserved" forests.

90. The areas closed to grazing during 1890-91 and 1891-92 were as shown below :—

Divisions.	Area closed.			
	1890-91.		1891-92.	
	Sq. miles.	Acres.	Sq. miles.	Acres.
Northern Division of Kánara ...	190	214	190	214
Central do. do. ..	81	455	81	455
Southern do. do. ...	123	629	123	629
Belgaum do.	24	536	23	487
Dhárwár do.	90	307	8	109
Bijápur do.	43	291	.....	
Kolába do.	6	567	6	567
Ratnágiri do.	20	79	20	79
Total ...	581	518	454	620

NATURAL REPRODUCTION.

I.—By seed and II.—By Coppice.

Northern Division of Kánara.

91. The Divisional Forest Officer reports that in the specially protected areas the natural reproduction is, in many parts, very satisfactory, particularly along the Bárchi and Kátinhal *nálas*, but that in the large dense teak tracts of the Supa range, where the cover is dense, practically no new teak seedlings are coming on. Mr. MacGregor noted during his tour the "total absence of teak seedlings in Gund, Mandurli, Hudsi, &c., where the best teak forests are to be found and this even in those areas which have been protected from fire for the past two years."

92. Mr. Talbot remarks that favourable seasons for the germination of the teak seeds and the success of the young plant only occur at intervals.

Central Division of Kánara.

93. Natural reproduction is as favourable as was reported last year. Wherever fellings have taken place and light let into the jungles, seedlings are said to have sprung up profusely, and young trees, which were suffering from too much shade, are now asserting themselves vigorously. All the successfully protected forests, especially the teak forests of Yellápur, are full of young growth.

94. Mr. Haselden reports that in the Hosalli jungles of Yellápur a large quantity of blackwood seedlings was observed, and a fire-path was, therefore, made round that patch which is about 2 acres. The result is that about 2,000 young trees are ready for transplantation.

Southern Division of Kánara.

95. The Divisional Officer reports that there is nothing to fear if only nature was allowed to act, but that fires kill off seedlings and shoots before they can acquire strength.

96. In the large forests, seedlings are said to be plentiful, and of the kinds required, but few survive the struggle through dense mass of bamboo and undergrowth that prevents the plants from reaching the light. The robust few that survive are so deformed and twisted that they grow into very indifferent trees.

97. Mr. Woodrow further reports that he made a couple of tests with the object of ascertaining the number of small plants and seedlings in the Bilki forests of Sirsi, with the result that by one of the tests 402 plants below 6″ in diameter were found per acre.

Belgaum Division.

98. Natural reproduction was benefited by the special measures of fire-protection. These appear to have more than counterbalanced the drawback of a deficient rainfall. In the teak forests of Nágargáli and Kirpoli, where most of the large timber has been cut out and thinnings are made, the reproduction was good.

99. In the Hemadgé forests of the Khánápur range an area of 300 acres was enclosed with a thorny fence, where natural reproduction was most excellent.

100. In the fuel cuttings the reproduction by coppice continues to be good.

Dhárwár Division.

101. The Divisional Officer reports that in the cuttings natural reproduction was progressing very favourably.

Bijápur.

102. The Divisional Officer remarks that there has been considerable improvement in the Bádámi range and some in Bágalkot. The stools in the *coupe* exploited by Government Agency at Shivpur in Bádámi are said to have coppiced exceedingly well.

103. Natural reproduction by seed is reported to be poor apparently for the reason explained in previous years' reports.

Kolába and Ratnágiri.

104. The Kolába and Ratnágiri Districts were again made into two separate forest charges since the year closed.

105. Mr. Stewart, who only took over charge last July, reports that according to Mr. Greatheed's diaries reproduction from stools was favourable in some parts.

ARTIFICIAL REGENERATION.

Northern Division of Kánara.

106. The teak, casuarina and divi-divi plantations in the Division are reported to be doing well. 4,000 seedlings were put down in breaks caused by teak fellings in the Haliyál Táluka. Of these, 2,800 are succeeding and the rest died from drought.

107. Six acres of sandy dune land were added to the Argé casuarina plantation, and 7,000 plants were put out, of which 4,000 died. 185 seedlings were also put out to fill up blanks in the casuarina plantation at Kárwár.

108. The amount expended in the division under this head was Rs. 973.

Central Division of Kánara.

109. In the Sabgeri jungles of the Yellápur range about 20 acres were sown with teak seeds, the result being that about 300 seedlings germinated. Probably better results will be reported next year as teak seeds often take a long time to germinate. Wherever teak fellings were made, seeds were sown near the stools. Nurseries were also formed in the several places by sowing 19 maunds of seed, and 9,060 teak and 2,000 blackwood seedlings available for transplantation were raised therein. These are reported to be looking well and healthy.

110. In the Mundgod range 4 acres were formed into a teak plantation, and this is reported to be promising well. Out of 673 plants put out in the Hulihond plantation 614 survived. Besides these, of the 2,551 teak and 150 matti (*terminalia tomentosa*) plants put down in the range, 1,931 of the former and 122 of the latter survived.

111. In the Devarbail and Báleguli plantations of the Ankola range 2,155 young trees of several kinds were put out. Of these 1,820 are alive.

112. About 23 maunds of seed were sown and 8,960 seedlings germinated, and these are said to promise well. Nurseries were also kept up, wherein 4,816 plants of teak, harda and junglewood were available for transplantation.

113. In the Honnébail jungles 100 young trees were put out from the previous year's nursery, of which 70 are said to be still alive.

114. In the Kumta range 2,335 plants of teak, harda and junglewood were put out. Of these, 1,765 died. The Divisional Forest Officer says that although so many are reported to have died, yet a good many are expected to revive during the present rains. About 12 maunds of seed were sown in a nursery at Katgál and 20 maunds in other places.

115. The amount expended was Rs. 484.

Southern Division of Kánara.

116. The disease reported to have attacked the casuarina trees in the Kásarkod plantation has not spread, although some trees slightly affected before have died during the year.

117. The Divisional Forest Officer reports that "the expert opinion from Dehra has not helped us to discover the nature of the disease which remains as much a mystery as before."

118. Seeds of different kinds were collected and sown broadcast by forest guards, but those that had sprouted are said to have died during the hot

weather. In the Honávar range 25 acres were planted with teak seedlings that had germinated in, and were then transplanted from, the forests; and 1,515 seedlings are thriving.

119. The amount expended was Rs. 57.

Belgaum.

120. Here, the experiment of sowing seeds with hoe-picks made in the previous year, and repeated in that under report, is reported to have failed.

121. A regular plantation of 6 acres was made in Deshnur, Sampgaon range, and the *nim* and mango plants put down therein are coming on very well. At Hemadgé, Khánápur range, 300 acres were fenced in, and sown with seeds of various kinds, and it is reported that a fair percentage of plants was noticeable.

122. The expenditure incurred was Rs. 47.

Dhárwár and Bijápur.

123. No planting was done in these divisions, the season being unusually dry. In Bijápur drought killed off the seedlings which previously existed at Hosur and Manglur; and 68 maunds of seed were sown broad-cast. In Dhárwár a few sowings were made with the pick-hoe.

124. The expenditure amounted in Dhárwár to Rs. 270, and in Bijápur to Rs. 52.

Kolába-Ratnágiri.

125. Fifty-four acres 30 gunthás in the Karjat and Khálápur ranges of the Kolába division were sown with sandalwood and other seeds, in pits and broad-cast.

126. In Ratnágiri 24,777 seedlings were transplanted from the Dápoli nursery, and about 6 maunds of seed sown broad-cast.

127. The amount expended was Rs. 128.

COMMUNICATIONS AND BUILDINGS.

128. A sum of Rs. 6,809 was expended on works under this head: Rs. 2,660 on "Roads and Bridges," Rs. 2,990 on "Buildings" and Rs. 1,159 on other works.

129. In the Northern Division of Kánara the Bhágwati-Poteli forest road as well as other forest cart-tracks were repaired at a cost of Rs. 458, and Rs. 25 were spent on the Haliyál Depôt road. A well was sunk at Madnalli (Rs. 250), and Rs. 60 were expended in repairing bridges and a timber slide in Kárwár.

130. Forest buildings were repaired at a cost of Rs. 255.

131. In the Central Division of Kánara Rs. 250 were paid towards repairing Hittal-Kárgadde-Mágod road. The Kannigeri-Udámki road was put in repair (Rs. 393), and three new watch-houses built for Rs. 800. Rs. 914 were spent in repairing forest buildings, rest-houses, watch-houses, &c., of the division, and Rs. 300 in sinking a well in Mundgod.

132. In the Southern Division of Kánara a well was sunk near the Singanhalli Timber Depôt,—the need of this well had been much felt in the past—at a cost of Rs. 300, and Rs. 26 were laid out on repairing forest tracks. Rs. 275 were also spent in repairing forest watch-houses, &c.

133. In Belgaum a sum of Rs. 1,403 was expended on the Nágargáli-Halshi road, and Rs. 382 was paid to the Revenue Department for exemption from toll fees on fuel carts passing by the Gunji Local Fund road. A forest watch-house was newly built for Rs. 300 and old buildings put in repair (Rs. 223).

134. In Dhárwár the Devikop rest-house and all náka houses were repaired at a cost of Rs. 229.

135. In Kolába Rs. 588 were spent under this head, and in Ratnágiri the Bánd road was repaired (Rs. 29), and a new guard-house built for Rs. 74.

CHAPTER IV.

YIELD AND WORKING.

136. There was no change in the mode of working from that reported in previous years.

137. The following is a summary of the yield of the forests of the several divisions for 1890-91 and 1891-92 :—

Northern, Central and Southern Divisions of Kánara.

138. The yield of large teak, exploited, increased from 345,894 cubic feet in 1890-91 to 354,459 cubic feet in 1891-92; and of small teak, such as poles, rafters, &c., from 54,578 to 81,360 cubic feet.

139. The large junglewood removed, fell from 324,279 cubic feet in 1890-91 to 165,756 cubic feet in 1891-92; but the yield of small junglewood rose from 4,523 cubic feet to 5,968 cubic feet, and of large blackwood from 19,538 to 24,546 cubic feet; the blackwood poles and pieces were 137 cubic feet in 1891-92 against 914 in 1890-91.

140. The increase in the yield of large teak for the year under report, occurs in the Central Division of Kánara, where 25,000 cubic feet were brought in in excess of the quantity exploited in the previous year; of these 25,000 cubic feet, about 23,000 were taken down to the Kodibág Depôt from the Nersol forests of Yellápur. While, the quantity exploited in Northern and Southern Kánara was less by 13,529 and 2,935 cubic feet, respectively. The quantity of timber brought to the Haliyál Depôt (Northern Kánara) was, however, greater by 7,908 cubic feet, but there was a decrease of about 8,000 cubic feet in the quantity taken down to the Kodibág Depôt from the Gund forests.

141. The decrease in the quantity of large junglewood is met with in all the three divisions; but of the blackwood, 6,100 cubic feet more were brought in the Northern Division.

142. The number of bamboos extracted fell from 3,828,355 in 1890-91 to 3,294,192 in 1891-92.

143. The firewood exploited rose from 1,635,124 cubic feet to 2,025,643 cubic feet, and the yield of myrobollams from 3,061 to 3,346 khandis.

144. The outturn of sandalwood decreased from 84 khandis in 1890-91 to 61 khandis in 1891-92; and of charcoal from 6,060 to 4,422 cubic feet.

145. The decrease in the number of bamboos is met with in the Northern and Central Divisions of Kánara, where it amounted to 437,848 and 132,479, respectively. The demand from the plain districts was small owing to the distressed state of the country. It is also reported that since the tolls were established near Haliyál, and railway rates increased for bamboos, the demand has diminished. A slight increase in the number of bamboos exported from the Southern Division of Kánara and from the Kárwár range is to be noted.

146. The increase in the quantity of firewood is met with in Northern (9,447 cubic feet), Central (346,953 cubic feet) and in Southern Kánara (34,119 cubic feet). The large increase in Central Kánara is due to the quantity removed from the Ankola range on the coast for export. The quantity of fuel supplied to the Railway Company from the Supa range of the Northern Division, amounted to 289,000 cubic feet against 182,104 in the previous year.

147. The increase in the yield of myrobollams is accounted for by the better crop in the Northern Division. There was some difficulty in finding mature sandalwood trees, hence the decrease in the outturn of sandalwood shown above, which occurs chiefly in the Southern Division.

Belgaum Division.

148. The large teak exploited during the year under report amounted to 4,424 cubic feet against 9,771 cubic feet of the preceding year. The outturn of blackwood and junglewood measured 184 and 4,801 cubic feet, respectively, against 1,063 and 14,310 cubic feet.

149. Of small timber (teak poles, &c.,) there were 34,979 cubic feet against 29,293; and of blackwood and junglewood, 190 and 12,313 cubic feet, respectively, against 507 and 22,454 cubic feet.

150. The quantity of firewood exploited during the year shows a decrease. The running-fuel brought in for the Railway Company amounted to 2,893,400 cubic feet against 3,210,120 cubic feet of 1890-91; lighting-fuel to 9,522 cubic feet against 13,600; and the firewood removed for other purposes to 724,422 cubic feet against 731,567.

151. The yield of myrobollams fell from 5,929 khandis in 1890-91 to 5,148 in 1891-92, and the number of bamboos from 405,569 to 402,037. But the quantity of charcoal rose from 11,837 cubic feet to 21,797.

Dhárwár.

152. The outturn of teak timber was 59,635 cubic feet against 63,816 cubic feet in 1890-91, and of fuel 213,722 cubic feet against 266,374. The quantity of junglewood rafters, blackwood pieces, *janthies*, *jarâyet* pieces, &c., amounted to 10,282 cubic feet against 11,635.

153. On the other hand, the number of bamboos extracted increased from 284,984 in 1890-91 to 335,247 in 1891-92; and 15 khandis of myrobollams were also obtained during the year under report.

Bijápur.

154. The yield of timber decreased from 5,710 in 1890-91 to 2,659 cubic feet in 1891-92; of cart-loads of firewood, from 80,550 to 65,991 cubic feet; of animal-loads, from 88,672 to 65,656 cubic feet; and of head-loads from 121,797 to 104,765 cubic feet.

Kolába.

155. The yield of teak trees increased from 575,600 cubic feet in 1890-91 to 613,730 cubic feet in 1891-92, and of teak beams from 75,000 to 101,097 cubic feet. But there was a small decrease in the quantity of firewood, which was 116,254 cubic feet and 113,411 cubic feet, respectively, for 1890-91 and 1891-92.

Ratnâgiri.

156. Here also the yield of teak rose from 122,502 cubic feet in 1890-91 to 128,575 cubic feet in 1891-92; and of firewood, from 45 to 24,800 cubic feet.

CHAPTER V.

FINANCIAL RESULTS.

157. The details of the year's transactions are shown in the statements 58 to 62 appended.

158. The receipts and expenditure of the Southern Circle for the years 1890-91 and 1891-92 were:—

Year.	Receipts.	Charges.			Surplus or net Revenue.
		A. Conservancy and Works.	B. Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1890-91	13,49,826	4,38,426	2,66,529	7,04,955	6,44,871
1891-92	11,47,707	4,37,415	2,67,816	7,05,231	4,42,476

159. The falling off in the revenue of the year under report occurs in all the divisions except Kolába-Ratnágiri, and it is largely ascribable to a want of demand for, and consequent failure in the sales of, timber on account of the scarcity prevailing in the plain districts. There was also a decrease in the revenue from fuel supplied to the Southern Marátha Railway Company. The reduction in traffic and consequent reduction of requirements in fuel by the Railway was to a large extent answerable for the fall in the receipts.

160. The following shows the revenue and outstandings at the end of the year:—

Year.	Amount realized.	Balance due to the Department at the end of the year.
	Rs.	Rs.
1890-91	13,49,826	1,98,184
1891-92	11,47,707	1,70,206

161. The following statement shows the receipts and expenditure for the two years under main heads:—

Heads of Revenue and Charges.	1890-91.	1891-92.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
RECEIPTS.				
I.—Timber and other produce removed from forests by Government agency	9,52,184	7,42,283	...	2,09,901
II.—Timber and other produce removed from the forests by consumers or purchasers...	3,88,390	3,87,984	...	406
III.—Confiscated drift and waif-wood ...	2,003	8,169	6,166	...
IV.—Revenue from forests not managed by Government	11	279	268	...
V.—Miscellaneous	7,238	8,992	1,754	...
Total ...	13,49,826	11,47,707	8,188	2,10,307
CHARGES.				
A.—Conservancy and Works.				
I.—Timber and other produce removed from forests by Government agency	3,31,634	3,14,107	...	17,527
II.—Timber and other produce removed from forests by consumers or purchasers	6,911	7,971	1,060	...
III.—Confiscated drift and waif-wood ...	76	99	23	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government ...	12,436	5,752	...	6,684
VI.—Live-stock, stores, tools and plant...	803	15,510	14,707	...
VII.—Communications and buildings ...	6,130	6,809	679	...
VIII.—Demarcation, improvement and extension of forests	74,482	81,583	7,101	...
IX.—Miscellaneous	5,954	5,584	...	370
Total A. ...	4,38,426	4,87,415	23,570	24,581
B.—Establishments.				
I.—Salaries	2,17,876	2,23,047	5,171	...
II.—Travelling allowances	33,040	34,021	981	...
III.—Contingencies	15,613	10,748	...	4,865
Total B. ...	2,66,529	2,67,816	6,152	4,865
Total Charges A. and B. ...	7,04,955	7,05,231	29,722	29,446

162. The receipts show decreases under the main heads I and II, and increases under the other heads. The decrease under II amounts only to Rs. 406.

I.—Timber, &c., removed by Government Agency.

163. The decrease under this head is met with as follows:—Rs. 1,76,439 under "*a*, Timber," Rs. 29,597 under "*b*, Firewood," and Rs. 7,032 under "*d*, Sandalwood."

164. In the Northern Division of Kánara alone the decrease in the revenue from *timber* amounted to Rs. 1,20,468. There was a diminution in the demand in the Haliyál auction sales, where only about 93,000 cubic feet were sold during the year against 143,695 cubic feet in the year before, and the rate obtained per 100 cubic feet was Rs. 120 against Rs. 142.

165. The scarcity is, no doubt, to a considerable extent, the cause of this decrease but not altogether.

166. The fellings for last season's sales were much larger than usual. From the data collected by the Working Plans Branch, Mr. MacGregor concluded that the exploitation of past years had been much below the possibility. He decided, therefore, (this office letter No. 4399 of 27th January 1890) to increase the outturn, although doing so would necessarily reduce sale prices. He argued that it was better to fell and sell more timber so long as the *net* return was maintained and the possibility not exceeded, although it had to be done at a much lower price. Such a policy is, of course, the proper one where Government owns the forest, for without reducing the net revenue, a larger supply of timber is made available to the people. Unfortunately, this new departure synchronized with a year of bad rainfall and scarcity, so that the demand for wood even at the minimum price fell far short of expectations resulting in a very seriously reduced revenue. It must be remembered, however, that the depôts are now fuller of timber than they have ever been, a large proportion of which is teak and practically imperishable.

167. Besides the fall in the sale-price of teak due to temporary local causes recorded above, Mr. MacGregor notes that there is also a general fall of 25 per cent. or more in prices in Europe and Bombay, which, of course, affects local prices. This fall Mr. MacGregor attributes principally to excessive yield from the Burma forests, and he expects that no recovery is to be looked for until the Burma yield falls off, which it may be expected to do as the Bombay-Burma Trading Company's leases fall in.

168. The decrease in Central (25,664) and Southern Kánara (9,667) and in Belgaum (2,639) and Dhárwár (22,766) aggregated Rs. 60,736. This was, no doubt, due to the prevailing distress in the plain country, while, the receipts in Kolába-Ratnágiri show an increase of Rs. 4,774.

169. Under "*b*, Firewood", the year's receipts in Belgaum show a decrease of Rs. 27,967, as compared with those of the previous year. This is attributable to slackness in railway traffic and consequent reduction in the fuel supply.

170. On the other hand, the revenue under "*e*, Grass and other minor produce" was Rs. 3,138 more than in 1890-91, which is due to a better crop of myrobollams in Northern Kánara.

II.—Timber, &c., removed by Consumers or Purchasers.

171. The actuals of the year under "*a*, Timber" show a decrease of Rs. 4,943, as compared with the revenue for 1890-91. But the receipts in Kolába-Ratnágiri show an increase of Rs. 15,167, while, decreases aggregating Rs. 20,110 occur in Northern (Rs. 6,257), Central (Rs. 7,179) and Southern Kánara (Rs. 1,342) and in Belgaum (Rs. 4,072), Dhárwár (Rs. 592) and Bijápur (Rs. 668). The falling off in Northern Kánara is ascribed chiefly to a decreased demand for export-timber in Kárwár, where the quantity removed was less by 10,133 cubic feet, as also to large fellings of junglewood in rayats' survey numbers; and in Belgaum to the fact that few trees were found fit for timber in the fuel cuttings. In Central Kánara a certain contractor had carried on unauthorized fellings under the cloak of his contract, and therefore his wood was confiscated and sold by Government, which caused a decrease under "*a*, Timber" and swelled the receipts under the Head III.

172. Under "*b*, Firewood" there is an increase of Rs. 6,208 in the Central Division of Kánara and Rs. 2,082 in Belgaum, while the receipts of Northern Kánara, Kolába-Ratnágiri and Bijápur show a decrease of Rs. 8,149, Rs. 2,549 and Rs. 1,277, respectively. In the Ankola Range there was a better demand for export-firewood, and in Khánápur for refuse-wood from railway fuel-cuttings, hence the increase noted above; but the demand for fuel from Kárwár was not brisk, and this accounts for the decrease in Northern Kánara.

173. There was a falling off of Rs. 4,718 in the receipts under "*c*, Bamboos" which occurs mainly in Northern (Rs. 3,521), and in Central Kánara (Rs. 2,041), and is attributable to a decreased demand for bamboos noted in the

preceding chapter. On the other hand, "*d*, Grazing and fodder grass" shows an increase of Rs. 18,678 for the reasons explained in paragraph 87. But "*e*, Other minor produce" shows a decrease of Rs. 5,934, which is due in Northern Kánara (3,001) and Belgaum (Rs. 2,291) to a bad crop of *Shigékái* and other minor products.

EXPENDITURE.

A.—Conservancy and Works.

174. The increase under VI is due to the purchase of cattle and carts in the Central Division of Kánara (Government Resolution No. 5147 of 22nd June 1892). That under "VIII *b*" (Rs. 1,217) is due to acquisition of land for forests in Belgaum and Southern Division of Kánara; and under "VIII *c*" (Rs. 3,073) and *e* (Rs. 3,975) to charges connected with topographical survey in Kolába and to expenditure on fire-protection in the Northern Division of Kánara.

B.—Establishments.

175. Increase under "I, Salaries' is met with chiefly as follows :—Rs. 1,483 under "*b*, Superior officers" and Rs. 2,488 under "*c*, Subordinate forest and depôt establishments." This is ascribable (*a*) to a new Forest Officer having been posted to the Southern Circle as well as to promotions of other officers, and (*b*) to the transfer of establishment of the Karjat and Khálápur Ranges from the Northern to this Circle.

176. The following shows the value calculated at seigniorage rates of the forest produce granted free :—

Division.	1890-91.					1891-92.				
	Timber—Cubic feet.	Bamboos of sorts.	Canes—Head-loads.	Fire-wood—Cubic feet.	Value.	Timber—Cubic feet.	Bamboos of sorts.	Canes—Head-loads.	Fire-wood—Cubic feet.	Value.
		No.			Rs. a. p.		No.			Rs. a. p.
Northern Division of Kánara	18,448	9,460	..	825	3,215 14 11	11,089	5,350	..	1,813	2,820 12 2
Central Division of Kánara . .	20,658	2,100	10	180	4,283 8 11	29,562	6,150	8	..	5,561 13 11
Southern Division of Kánara	22,910	650	..	..	4,510 2 7	16,238	3,000	11	..	3,771 1 9
Belgaum	2,119	155	..	..	434 15 11	768	..	..	..	184 5 8
Dhárwár	1,145	350	..	..	633 0 0	230	..	..	..	130 6 0
Bijápur	..	..	..	.	....	..	..	..	..	....
Kolába	7,720	..	..	..	670 0 0	16,660	..	..	..	1,324 0 0
Ratnágiri	..	..	..	..	....	.	..	..	..	....
Total ..	73,000	12,705	10	1,005	13,787 10 4	75,156	14,500	19	1,813	13,792 7 6

CHAPTER VI.

GENERAL REMARKS.

TOUR OF INSPECTION.

177. On the 1st April Mr. MacGregor was at Bomanhalli in the Kánara District, where he met Mr. Bell and the officers serving under him in the Working Plan Division.

178. On the 3rd he reached Supa in the Northern Division of Kánara, where in company with the Divisional Officer he met His Excellency the Governor. On the 13th he proceeded to Yellápur, Tátwhál, Sámbráni, Zálali, Kumbhárváda, Sámjoida and Astoli, which last was reached on the 21st May, and next day he went into head-quarters for the rains.

179. On November 15th he left Belgaum for the Bijápur Division, marching *viâ* Márihál, Halki, Panchgaon and Lokápur to Kaládgi. On the 28th he reached Katgeri. He found the reserves of the Bágalkot and Bádámi Tálukas devoid of grass and great scarcity of fodder and water in most parts of the country, but the forests presented their usual appearance at that season and did not seem to be in any way affected by the drought.

180. From Katgeri he went to Bijápur for the inspection of the Divisional Office and there met Mr. Ryan. From Bijápur he returned to Katgeri and marched thence to Manoli in the Parasgad Táluka of the Belgaum Division,

where he arrived on the 14th December. From Manoli he proceeded *viâ* Huli, Saundatti, Betgeri, Bidi and Mantargi, to Hemadgé in the Belgaum District, which he reached on the 24th December. During his tour through the Parasgad forests he noticed that "the number of goats grazed is apparently as great as ever, although the fee charged has been quadrupled (it has been raised from half to two annas). Improvement in the condition of the Parasgad forests is, of course, impossible as long as they are infested by these pests." One individual is reported to have paid as much as Rs. 90 on account of grazing fees on goats and another is said to own 1,500 goats!! It should be recorded that these forests are at present "Protected". The final report regarding their conversion into "Reserved" is before Government. When they become "Reserved" the grazing regulations will come into force and goat grazing can then be controlled.

181. Christmas was spent at Hemadgé and thence he started for Belgaum which was reached on the 8th January.

182. The camp was despatched by goods train to Karjat, which it reached on 17th, and Mr. MacGregor rejoined it there two days later. From Karjat he marched through the Kháláپur and Panvel Ranges to Panvel which he reached on the 27th January. Thence he proceeded *viâ* Kalhé and Pen (where he met the Divisional Forest Officer) to Alibág, returning *viâ* Bombay to Belgaum on the 8th February.

183. On the 17th he reached Mugutkhán-Hubli in the Belgaum District and marched thence *viâ* Dhárwár and Hubli to Tadas in the Dhárwár District. From Tadas he went to Kátur, Bhartanhalli, Sirsi, Sonda (where he met the Divisional Forest Officer, Southern Division of Kánara), Bilki, Manchikeri and Yellápur, reaching this last place on the 24th March. At Yellápur he met the Divisional Forest Officer, Kánara Central Division, and remained there until the end of the year.

184. *Working Plans.*—Although signing this report, I did not receive charge of the Circle until after the close of the year to which it refers. The remarks recorded under the heading "Natural Reproduction" seem to me to be of sufficient importance, however, to require special notice. All that I saw during the short tour I was able to make before the rains commenced and all I have heard, point to the conclusion that under the present system teak reproduction is not assured. Under "Artificial Reproduction" certain measures to compensate for this failure are recorded, but on the large scale on which exploitation is carried on in Kánara any such quasi-horticultural makeshifts can never be sufficient. Under the thickest cover teak will germinate; but I think sufficient is recorded from the reports of Divisional Officers under "Natural Reproduction" to warrant, irrespective of theory, the belief that the present system of unregulated *jardinage* is answerable to a considerable extent for the failure of teak reproduction, for the cover is not sufficiently broken to allow the germinated seedlings to live and grow. Again, Mr. MacGregor records that the *data* collected by the Working Plans Branch have encouraged him to extend working and increase the annual outturn. But with even a thorough knowledge of the jungles it must always be a guess to what extent *data* collected in one forest are of universal application. For these reasons one of the most urgent, if not the most urgent, question in connection with forest administration in the Southern Circle is that of Working Plans. It is to be regretted, therefore, that owing to a paucity of trained officers the two Working Plan Parties during the past year have been working under one officer, consequently the collection of the more important data, which work can only be entrusted to a trained officer, has not made the progress it should. It is to be hoped that in the coming season it will be possible to spare another trained officer of experience, so that this most important work of preparing Working Plans may be pushed on vigorously to completion.

185. *Forest Settlement.*—Another branch of work vitally connected with the above has also made less progress than could be wished. I allude to forest settlement. This poor result is also due to the paucity of officers available, for though a second Settlement Officer for Kánara was asked for, Government was

unable to comply with the request, there being no one available to take up the work. If the preparation of Working Plans is an urgent necessity, Forest Settlement is so *a fortiori*, in that it should precede the other. But, irrespective of this, the actual conservation of the forests from destruction depends largely on their early settlement. In many parts of Kánara, wherever the system of agriculture causes a demand for "Soppu" or tree-loppings, cultivators, as reported by the Divisional Officers, lop at their pleasure not only brushwood, &c., but even reserved trees, and the Magistrates, in view of the claim to prescriptive right raised by the accused, refuse to punish. It is true that Government in their Resolution No. 7844 of 3rd October 1884, direct that Forest Officers should "prevent the exercise by the rayats of asserted rights of which Government deny the existence, leaving the claimants to sue Government in order to establish their claims"; but unfortunately this is not practically possible. A guard may prevent any one cultivator from lopping indiscriminately for a certain time, but the moment the guard's back is turned the man may and does recommence the work of destruction, practically without fear of punishment. It is to be hoped, therefore, that it will be found practicable to appoint a second officer during the coming season, for at the present rate the completion of the forest settlement of Kánara cannot be hoped for under 5 or 6 years.

186. *Rules for Protected Forests.*—The want of rules under Section 31 of the Indian Forest Act, mentioned in last year's report, is still badly felt. As Government, however, have taken up this matter since the close of the year under report, no more need be said here.

187. *Services of Officers.*—In the absence of a special note by Mr. MacGregor, I may safely record that all officers of the Circle have done their duty heartily and successfully.

188. The same may be said of the office establishment. Mr. Dattatraya Manjunath Bijur, Head Clerk in the Conservator's office, has since the close of the year obtained his promotion to the grade of Extra Assistant Conservator.

189. I give below the names of executive officers who are reported by Divisional Officers to be worthy of special commendation:—

Mr. Sheshu Manjo, Extra Assistant Conservator.
Mr. Babaji Jotiba, Range Officer, Bádámi.
Mr. Abdul Rauf, Forest Ranger, Bankápur.
Mr. W. S. Palekar, Range Officer, Dhárwár.
Mr. Narsing Tirmal, Range Officer, Kod.
Mr. Ghose Khan, Forest Ranger, Supa.
Mr. G. J. Rege, Forest Ranger, Khánápur.
Mr. Hasan valad Mohodin, Forester.
Mr. Mangesh Nagapa, Forest Ranger, Yellápur.
Mr. Mahableshvar Nagapa, Forest Ranger, Mundgod.

R. C. WROUGHTON,
Acting Conservator of Forests, S. C.

Belgaum, 15th September 1892.

LIST OF STATEMENTS ACCOMPANYING THE FOREST ADMINISTRATION REPORT OF THE CONSERVATOR OF FORESTS, SOUTHERN CIRCLE, FOR 1891-92.

Form No. 49	Area of Reserved Forests, 1891-92
" " 49A	Area of Protected Forests, 1891-92.
" " 50	Prosecution for breaches of Forest Rules during 1891-92.
" " 50A	Statement showing the number of cases of misappropriation of minor produce of the several Divisions of the Southern Circle for the year 1891-92.
" " 50B	Statement showing the number of cases in which fines amounting to one rupee, two rupees and so on, up to the maximum, were inflicted during 1891-92.
" " 51	Area of Forest tracts protected from fire during the dry season of 1892.
" " 52	Area of Plantations, 1891-92.
" " 54	Outturn of Timber and Fuel, 1891-92.
" " 55	Outturn of Minor Forest Produce, 1891-92.
" " 56	Account of Timber and other Produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1891-92.
" " 57	Abstract showing the value of Timber and other produce at Sale Depôts for the year 1891-92.
" " 57A	Abstract showing the value of Dead Stock for the year 1891-92.
" " 58	Summary of Revenue and Expenditure of the different Divisions during the year 1891-92.
" " 59	Account current for the year 1891-92.
" " 60	Revenue received and Outstandings on account of Revenue during 1891-92
" " 61	Outstandings and Liabilities on account of Contractors and Disbursers for 1891-92.
" " 62	Financial Results of the year 1891-92.

R. C. WROUGHTON,
Conservator of Forests, S. C.

ANNUAL FORM No. 49.

Forest Department, Bombay, Southern Circle.

Area of Reserved Forests, 1891-92.

Division or Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1891.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1892.		Number and date of Notification of addition or transfer.	Remarks
			Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles		
1. Northern Division of Kánara.	Kánara ...	Haliyál and Kárwár	298,425	466	...	...	298,425	466		
2. Central Division of Kánara.	Kánara ...	Mundgod, Ankola and Kumta...	117,944 4/5	184	...	...	117,944 4/5	184		
3 Southern Division of Kánara.	Kánara ...	Sirsi and Honávar	57,578 1/5	90	8,691 5/40	...	66,269 13/40	104	No. 3083 of 29th March 1892.	
4. Belgaum Division.	Belgaum ..	Khánápur, Gokák, Belgaum, Sampgaon, Chikodi, and Athni.	316,576 7/10	495	...	55	316,521 7/10	495	No. 4561 of 6th July 1891 and 390 of 19th January 1892	
5. Dhárwár Division.	Dhárwár ...	Dhárwár, Kalghatgi, Hángal, Bankápur, Kod, Gadag, Ron, Nargund, Hubli and Ránebennur.	109,850 3/40	172	...	...	109,850 3/40	172		
6. Bijápur Division.	Bijápur ..	Bádámi, Hungund, Bijápur, Bágevádi, Muddebihál and Indi.	99,275 3/40	155	...	...	99,275 3/40	155		
7. Kolába Division.	Kolába ..	Alíbág, Panvel, Pen, Roha, Mahád, Mángaon, Karjat and Khálápur.	195,797 9/20	306	* 40,967 +9,114	... +1,752	244,126 9/20	381	No. 3039 D of 4th May 1891 and 4561 A of 6th July 1891.	
8. Ratnágiri Division.	Ratnágiri ...	Dápoli, Khed, Rájápur, Chiplún, Sangameshwar, Ratnágiri, Devgad and Málvan.	12,879 4/5	20	...	...	12,879 4/5	20		
		Total ...	1,208,327 1/10	1,888	58,772 5/40	1,807	1.265,292 9/40	1,977		

* Area of Karjat and Khálápur ranges transferred from the Northern to the Southern Circle.

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

ANNUAL FORM No. 49A.

Forest Department, Bombay, Southern Circle.

Area of Protected Forests, 1891-92.

Division or Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1891.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1892.		Number and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles.		
1. Northern Division of Kánara.	Kánara ...	Supa	462,476	722	...	...	462,476	722		
2. Central Division of Kánara.	Kánara ...	Mundgod, Kumta, Yellápur and Ankola.	$567,480\frac{23}{40}$	887	...	$8\frac{34}{40}$	$567,471\frac{29}{40}$	887	No. 4812 of 16th July 1891.	Disforested.
3. Southern Division of Kánara.	Kánara ...	Siddápur, Honávar, Sirsi and Bhatkal.	$766,620\frac{3}{20}$	1,198	...	$8,691\frac{5}{40}$	$757,929\frac{1}{40}$	1,184	No. 3083 of 29th March 1892.	Transferred to Reserved Forests.
4. Belgaum Division.	Belgaum ...	Belgaum, Chikodi, Gokák and Parasgad.	$126,011\frac{33}{40}$	197	...	...	$126,011\frac{33}{40}$	197		
5. Dhárwár Division.	Dhárwár ...	Dhárwár, Kalghatgi, Bankápur, Kod, Hángal, Gadag, Ránebennur, Hubli and Karajgi.	166,658	260	...	...	166,658	260		Actual area under management of the Forest Department. This was not included in last year's return.
6. Bijápur Division.	Bijápur ...	Bágalkot, Hungund, Bijápur, Bágevádi and Indi.	57,369	90	...	...	57,369	90	.....	
7. Kolába Division.	Kolába ...	Alíbág, Panvel, Pen, Roha, Mahád, Mángaon, Nágothna, Karjat and Khálápur.	$37,049\frac{2}{5}$	58	4,958*	1,105	$40,902\frac{2}{5}$	64	No. 3039B of 4th May 1891.	Disforested.
		Total ...	$2,183,664\frac{19}{20}$	3,412	4,958	$9,804\frac{39}{40}$	$2,178,817\frac{39}{40}$	3,404		

* Area of Karjat and Khálápur ranges transferred from the Northern to the Southern Circle.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

ANNUAL FORM No. 50.

Forest Department, Bombay, Southern Circle.

Prosecutions for breaches of Forest Rules during 1891-92.

Forest Division and Civil District.		Cases pending from 1890-91.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to Forest by fire	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Northern Division of Kánara.	A	...	3	15	...	3	21	21	10	29	11	11	21	40	...
	B	...	...	8	...	...	8	8	8	16	...	...	8	16	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	...	3	23	...	3	29	29	18	45	11	11	29	56	...
Central Division of Kánara.	A	...	3	17	...	...	20	20	16	19	4	4	20	23	...
	B	...	2	59	...	...	61	61	60	74	1	1	61	75	...
	C	...	1	5	...	...	6	6	...	...	...	...	...	...	...
	Total	...	6	81	...	...	87	87	76	93	5	5	81	98	...
Southern Division of Kánara.	A	1	...	103	...	...	103	104	5	6	2	12	7	18	97
	B	...	...	45	...	...	45	45	45	63	...	...	45	63	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	1	...	148	...	...	148	149	50	69	2	12	52	81	97
Belgaum Division	A	4	1	23	11	1	36	40	27	60	12	31	39	91	1
	B	...	...	174	17	19	210	210	210	210	...	...	210	210	...
	C	...	...	28	...	...	28	28	...	...	...	...	...	...	...
	Total	4	1	225	28	20	274	278	237	270	12	31	249	301	1
Dhárwár Division	A	...	...	7	...	...	7	7	6	11	1	1	7	12	...
	B	...	...	65	...	...	65	65	65	196	...	...	65	196	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	...	...	72	...	...	72	72	71	207	1	1	72	208	...

Bijápur Division	A	1	...	6	2	...	8	9	8	34	...	...	8	34	1
	B	...	...	47	2	...	49	49	49	214	...	...	49	214	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	1	...	53	4	...	57	58	57	248	...	...	57	248	1
Kolába-Ratnágiri Division.	A	5	...	142	2	7	151	156	124	396	26	96	150	492	6
	B	...	4	342	2	18	366	366	366	2,582	...	...	366	2,582	...
	C	...	...	6	...	9	15	15	...	...	...	...	...	...	...
	Total	5	4	490	4	34	532	537	490	2,978	26	96	516	3,074	6
Grand Total	A	11	7	313	15	11	346	357	196	555	56	155	252	710	105
	B	...	6	740	21	37	804	804	803	3,355	1	1	804	3,356	...
	C	...	1	39	...	9	49	49	...	...	...	...	...	...	...

A. Means cases taken into Court.
B. Means cases disposed of under Section 67 of the Indian Forest Act.
C. Means undetected cases.

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

B 693—8C—7

ANNUAL FORM No. 50 A.

FOREST DEPARTMENT, SOUTHERN CIRCLE, BOMBAY.

Statement showing the Number of Cases of misappropriation of minor produce of the several Districts of the Southern Circle for the years 1890-91 and 1891-92.

Division.	NUMBER OF CASES OF MISAPPROPRIATION OF																								Total cases of misappropriation.		Remarks.
	Timber.		Fire Wood.		MINOR PRODUCE.																						
					Leaves.		Stones, earth and minerals.		Cinnamon, matti, kaki and bábul barks.		Tarwad bark.		Canes.		Harda.		Honey.		Bábul pods.		Cinnamon.		Total.				
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	
Northern Division, Kánara	31	23	..	..	..	..	..	..	..	..	..	..	2	3	..	..	..	..	..	..	..	..	2	3	33	26	
Central Division, Kánara	16	29	..	..	*42	*47	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	43	47	58	76	
Southern Division, Kánara, ...	50	34	2	5	*60	*109	..	..	..	..	..	..	1	..	..	..	2	..	..	..	1	..	64	109	116	148	
Belgaum Division	54	33	244	148	2	3	7	5	..	..	1	..	..	..	3	8	..	..	..	..	..	..	13	16	311	197	
Dhárwár do.	40	47	21	19	..	1	2	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	5	66	71	
Bijápur do.	..	..	73	48	..	2	5	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	6	5	79	53	
Kolába do.	207	272	..	..	..	..	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	3	207	275	
Ratnágiri do.	131	118	..	..	†9	†91	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	91	142	269	
Total .	528	556	343	220	113	253	16	12	1	1	2	..	3	3	3	9	2	..	..	1	1	..	141	279	1,018	1,065	

* These cases were for illicit lopping of trees for *Soppu* or *ráb* by cultivators of *Supári* gardens.
† Leaves for *ráb*.

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, S. C.

Statement showing the number of cases in which fines amounting to one rupee, two rupees and so on up to the maximum were respectively inflicted during 1891-92.

Divisions.	Number of fines inflicted.																																	Total.	
	Rupee 1 and under.	Rupees 2 and under.	Rupees 3 and under.	Rupees 4 and under.	Rupees 5 and under.	Rupees 6 and under.	Rupees 7 and under.	Rupees 8 and under.	Rupees 9 and under.	Rupees 10 and under.	Rupees 11 and under.	Rupees 12 and under.	Rupees 13 and under.	Rupees 14 and under.	Rupees 15 and under.	Rupees 16 and under.	Rupees 17 and under.	Rupees 18 and under.	Rupees 19 and under.	Rupees 20 and under.	Rupees 21 and under.	Rupees 22 and under.	Rupees 23 and under.	Rupees 24 and under.	Rupees 25 and under.	Rupees 26 and under.	Rupees 27 and under.	Rupees 28 and under.	Rupees 29 and under.	Rupees 30 and under.	Rupees 31 and under.	Rupees 38 and under.	Rupees 91 and under.	Number.	Amount.
																																			Rs.
Northern Division of Kánara ...	1	1	1	1	..	..	1	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	49
Central Division of Kánara ...	38	4	1	1	4	1	2	1	1	1	1	2	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	60	197
Southern Division of Kánara ...	10	7	9	3	1	2	2	2	1	2	1	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	45	91
Belgaum Division	158	15	4	2	4	11	2	4	1	1	..	6	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	210	351
Dhárwár Division	32	10	6	5	3	1	1	..	..	4	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	65	180
Bijápur Division	34	8	2	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	49	215
Kolába-Ratnágiri Division ...	154	53	35	37	17	14	5	10	5	4	1	1	5	5	2	4	..	1	1	1	2	1	..	..	..	1	..	1	1	..	1	1	3	366	1,133
Total .	427	98	58	49	29	30	13	17	9	12	3	10	7	8	5	4	1	1	2	2	3	1	1	..	1	1	..	2	1	..	2	2	4	803	2,216

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

FORM No. 51.

Forest Department, Bombay, Southern Circle.

Area of Forest Tracts protected from Fire during the Dry Season of 1892 to accompany Annual Report for 1891-92.

Division.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 15th June 1891.	During the Dry Season of 1892.			Cost during the Season.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
			Acres.	Acres.	Acres.	Acres.	Rs.	
Northern Division of Kánara.	Haliyál Range Forests ...	1887-88 ...	128,226 7/8*	159,382	2,107	157,275	4,877	*36,002 acres of the Supa Range, which were included in the Haliyál Range last year, are included in the Supa Range this year.
	Kárwár do. ...	"	13,114	14,185	50	14,135	446	
	Supa do. ...	1888-89 ...	196,428*	196,434	90	196,344	5,536	
	Total ...	...	337,768 7/8	370,001	2,247	367,754	10,859	
Central Division of Kánara.	Yelláپur Range Forests .	1888-89 ...	43,572	61,822	525	61,297	2,125	
	Mundgod do. ...	"	35,074	36,890	2,919	33,971	1,010	
	Ankola do. ...	"	.....	5,333	480	4,853	174	
	Total ...	...	76,646	104,045	3,924	100,121	3,309	
Southern Division of Kánara.	Sirsi Range Forests ...	1887-88 ...	80,064	29,437	5,814	23,623	214	
Belgaum Division.	Chikodi Range Forests ...	1883-84 ...	895	800	.....	800	67	
	Khánápur do. ..	1884-85 ...	69,969	72,734	1,558	71,176	1,151	
	Belgaum do. .	1886-87 ..	10,600	23,562	705	22,857	110	
	Gokák--Sampgaon Forests	1887-88 ...	16,729	14,466	0—20	14,465-20	107	
	Total ...	. .	98,193	111,562	2,263—20	109,298-20	1,435	
Dhárwár Division	Dhárwár Range Forests ..	1888-89 ...	2,261	2,599	.....	2,599	135	
	Kalghatgi do. ...	"	7,699	6,965	1,175	5,790	168	
	Bankápur do. ..	"	5,489	5,195	8	5,187	112	
	Hángal do. ..	"	4,086	4,582	136	4,446	79	
	Kod do. ...	"	9,749	9,799	2	9,797	46	
	Gadag do. ...	"	6,277	6,480	.....	6,480	17	
	Total ..	...	35,561	35,620	1,321	34,299	557	
Bijápur Division.	Bádámi Range Forests ...	1889 90 ...	19,200	...	.....	.....	...	No special measures were taken to protect the forests from fires.
	Bagalkot do. ...	1889-90 ...	21,760	...	.....	.....	...	
	Total ...	...	40,960	...	.....	.....	...	
Kolába-Ratnágiri Division.	Dápoli Range Forests .	1889-90 ...	2,815 17/20	...	.....	.....	..	
	Málvan do. ...	"	173	.	.....	.....	...	
	Khalápur do. ...	1887-88 ...	19,407	19,407	774	18,633	105	
	Total ...	...	22,395 17/20	19,407	774	18,633	105	
	Grand Total ...	...	†691,587 29/20	670,072	16,343 29/20	653,728 29/20	16,479	†The area actually protected as shown in Form No. 51 for 1890-91 was 672, 181 13/20. The difference is owing to an addition of 19,407 acres in the Khálápur range transferred during 1891-92 from the Northern to the Southern Circle.

R. C. WROUGTON,

Belgaum, 27th August 1892.

Conservator of Forests, Southern Circle.

FORM No. 52.

Forest Department, Bombay, Southern Circle.

Area of Plantations, 1891-92.

Division.	Name of Plantation.	Area in Acres. On 1st April 1891.	Area in Acres. Added during the year.	Area in Acres. Excluded during the year.	Area in Acres. Area on 31st March 1892.	Receipts of the year.	Charges of the year.	Remarks.
	Regular Plantations.	A. g.	A. g.		A. g.	Rs.	Rs.	
Northern Division of Kánara.	Kadra	357 0	...	...	357 0	...	401	
	Mardi	110 0	...	...	110 0	...	214	
	Sulgeri	110 0	...	...	110 0	...	240	
	Kárwár	123 0	...	...	123 0	848	118	
	Bingi	20 0	...	...	20 0			
	Arge	30 0	6 0	...	36 0	...	640	
	Barchi	221 0	...	...	221 0	...	...	
	Singatgeri	83 0	...	...	83 0	...	...	
	Bomanhalli	200 0	...	...	200 0	...	...	
Central Division of Kánara.	Devarbail	21 0	...	...	21 0	...	...	
	Arbail	5 0	...	...	5 0	10	20	
Southern Division of Kánara.	Kasarkod	298 0	...	...	298 0	...	57	
Belgaum Division ...	Kalasgade	13 0	...	...	13 0	...	1	
	Linganmat	16 0	...	...	16 0	...	...	
	Deshnur	150 0	6 0	...	156 0	...	32	
Dhárwár Division ...	Kelgeri	21 0	...	...	21 0	...	...	
	Kambarganvi	25 0	...	...	25 0	364 0	115	
	Devikop	29 0	...	...	29 0	...	19	
	Kalkundi	275 0	...	...	275 0	...	96	
	Hirur	12 0	...	...	12 0	...	19	
Bijápur Division ...	Mamdápur	174 0	...	...	174 0	...	...	
	Anantpur	90 0	...	...	90 0	...	...	
	Shivapur	12 0	...	...	12 0	...	...	
Kolába-Ratnágiri Division.	Rámdharni	50 0	...	...	50 0	...	...	
	Rájwádi	12 0	...	...	12 0	...	...	
	Chochi	2 0	4 0	...	6 0	...	34	
	Nerle	3 0	...	...	3 0	...	2	
	Bhaliwádi	13 0	...	...	13 0	...	...	
	Borgáon	1 0	5 0	...	6 0	...	5	
	Kharvandi Kudore ...	2 0	...	...	2 0	...	...	
	Khadve	2 0	...	...	2 0	...	...	
	Beed	1 0	...	...	1 0	...	...	
	Palaspuri	...	1 0	...	1 0	...	11	
	Sugve	...	1 0	...	1 0	...	6	
	Puli	...	1 0	...	1 0	...	3	
	Savali	...	10 0	...	10 0	...	4	
	Paturne	...	1 0	...	1 0	...	6	
	Ambivli	...	1 0	...	1 0	...	8	
	Adosi	97 0	...	...	97 0	...	...	
	Lavji	71 0	...	...	71 0	...	...	
	Oobarvira	15 0	...	...	15 0	...	...	
	Jambrug	58 0	5 0	...	63 0	...	16	
	Sungde	62 0	6 0	...	68 0	...	17	
	Khopoli	39 0	6 0	...	45 0	...	16	
	Bhanvaji	86 0	...	...	86 0	...	...	
	Nowse	30 0	2 0	...	32 0	...	...	
	Honad	20 0	...	...	20 0	...	...	
	Kumboli	46 0	...	...	46 0	...	...	
	Kharsundi	32 0	6 0	...	38 0	...	30	
	Vanaosal	2 0	...	...	2 0	...	...	
	Bhilaoli	37 0	...	...	37 0	...	...	
	Kalothe Mokasi	53 0	...	...	53 0	...	...	
	Mandop	41 0	...	...	41 0	...	...	
	Vinegaon	3 0	...	...	3 0	...	...	
	Kalothe Rayate	7 0	...	...	7 0	...	...	
	Nudao	2 0	...	...	2 0	...	...	
	Nigdoli	1 0	...	...	1 0	...	...	
	Dhamni	2 0	...	...	2 0	...	...	
	Vadgaon	33 0	5 0	...	38 0	...	25	
	Kansoli	8 0	...	...	8 0	...	...	
	Nodhel	24 0	...	...	24 0	...	...	
	Loniwali	1 0	...	...	1 0	...	...	
	Vaverle	11 0	...	...	11 0	...	...	
	Pali Budruk	9 0	...	...	9 0	...	...	
	Vadviheer	5 0	1 0	...	6 0	...	7	
	Manivli Manawli	13 0	...	...	13 0	...	...	
	Varse	320 0	3 0	...	323 0	...	124	
	Borgaon Khurd	116 0	3 0	...	119 0	...	22	
	Sudewádi	190 0	...	...	190 0	...	...	
	Khálápur	3 0	...	...	3 0	...	...	
	Ghodiaoli	...	7 0	...	7 0	...	54	
	Dápoli	75 0	6 0	...	81 0	...	64	
	Total, Regular Plantations...	*3,993 0	86 0	...	4,079 0	1,222	2,426	

*The difference is owing to inclusion of the area of Karjat and Khálápur ranges transferred from the Northern to the Southern Circle.

FORM No. 52—*continued.*

Division.	Name of Plantation.	Area in Acres. On 1st April 1891.	Area in Acres. Added during the year.	Area in Acres. Excluded during the year.	Area in Acres. Area on 1st March 1892.	Receipts Of the year.	Charges Of the year.	Remarks.
	Cultural Operations.	A. g.	A. g.	A. g.	A. g.	Rs.	Rs.	
Central Division of Kánara.	Sahasrawali...	12 0	...	...	12 0	...	...	
	Yellápur	26 0	...	...	26 0	20	6 7	
	Harwada	1 0	...	...	1 0	...	...	
	Baleguli	8 0	...	...	8 0	5	155	
	Hulihond	...	4 0	...	4 0	...	69	
Southern Division of Kánara.	Banwási	27 0	...	...	27 0	...	...	
	Anegundi	7 0	...	...	7 0	...	...	
	Kalkatti	2 0	...	...	2 0	...	...	
Belgaum Division ...	Three Kumri villages in Belgaum	50 0	...	29 0	21 0	...	...	
	Nagargali	0 10	0 10	...	0 20	...	1	
	Sowing seeds in Konnur Jungles	200 0	...	...	200 0	...	...	
	Mawlinge	12 0	...	12 0	...	...	...	
	Umbgaon	10 0	...	10 0	...	...	...	
	Kunbargi	12 0	4 0	11 0	5 0	...	3	
	Bhogoli	8 0	...	8 0	...	...	...	
	Nittur	7 0	...	7 0	...	...	...	
	Isápur	12 0	...	12 0	...	...	...	
	Shiroli	5 0	...	5 0	...	...	...	
	Gunji...	12 0	...	12 0	...	...	...	
	Maskenhatti	2 0	...	...	2 0	...	1	
	Nandgad	12 0	...	12 0	...	...	...	
	Gundoli	4 0	...	4 0	...	...	...	
	Talewádi	5 0	...	5 0	...	...	...	
	Ghotgalli	3 0	...	3 0	...	...	...	
	Golehalli	2 0	...	2 0	...	...	1	
	Ramgurwádi	2 0	...	2 0	...	...	...	
	Karalgi	4 0	...	4 0	...	...	...	
	Degaum	3 0	...	3 0	...	...	...	
	Ragikumri	5 0	...	5 0	...	...	...	
	Manjarpai	1 0	...	1 0	...	...	...	
	Hemmadge	300 0	...	...	300 0	...	...	
	Bagarnal	126 0	...	126 0	...	...	...	
	Biranholi	200 0	...	200 0	...	...	...	
	Mastiholi	5 0	...	5 0	...	...	...	
Dhárwár Division ...	Kambarganvi	375 0	...	...	375 0	...	...	
	Hosur	307 0	...	...	307 0	...	...	
	Hunshikundi	300 0	...	...	300 0	...	...	
	Karkikop	1 0	...	...	1 0	...	..	
	Dhundshi	80 0	...	...	80 0	...	...	
	Allipur	16 0	...	...	16 0	...	...	
	Babapur	127 0	...	...	127 0	...	...	
	Channikatti...	10 0	...	...	10 0	...	...	
	Bassapur	10 0	...	...	10 0	...	...	
	Harrikatti	2 0	...	...	2 0	...	...	
	Bannihatti	42 0	...	...	42 0	...	...	
	Holtikota	200 0	...	...	200 0	...	...	
	Ragi Kallapur	25 0	...	...	25 0	...	...	
	Kalkeri	200 0	...	...	200 0	...	...	
	Galginkatti	470 0	...	...	470 0	...	...	
	Tersikop	300 0	...	...	300 0	...	...	
	Kalkundi	100 0	...	...	100 0	...	...	
	Hindasgeri	400 0	...	...	400 0	...	...	
	Halikoti Chikeri	706 0	...	...	706 0	...	...	
	Dudihalli	51 0	...	...	51 0	...	...	
	Nidnigal	44 0	...	...	44 0	...	...	
	Ballapur	8 0	...	...	8 0	...	...	
	Chikabbar	46 0	...	...	46 0	...	...	
	Medleri	144 0	...	...	144 0	...	...	
	Dambal	463 0	...	...	463 0	...	...	
	Sankadwadak	268 0	...	...	268 0	...	...	
	Nabapur	172 0	...	...	172 0	...	...	
Bijápur Division ..	Maindápur	216 0	...	...	216 0	...	...	
	Kaládgi	195 0	...	...	195 0	...	...	
	Jaknur	9 0	...	...	9 0	...	...	
	Khánápur	0 20	...	...	0 20	...	...	
	Nagral	0 20	...	...	0 20	..	...	
	Hosur	2 0	...	...	2 0	...	...	
	Mangalur	2 0	...	...	2 0	...	...	
Kolába-Ratnágiri Division.	Sáttád	81 0	...	...	81 0	...	...	
	Ektád	5 0	...	...	5 0	...	...	
	Karjat	...	20 0	...	20 0	...	...	
	Khálápur	...	2 0	...	2 0	...	...	
	Dápoli	82 0	1 0	28 0	55 0	...	...	
	Khed...	17 0	...	...	17 0	...	...	
	Chiplún	73 0	...	...	73 0	...	...	
	Sangameshvar	169 0	30 0	71 0	128 0	...	..	
	Málwan	30 0	...	...	30 0	...	...	
	Total, Cultural Operations...	6,834 10	269 10	785 20	6,318 0	25	297	
	Grand Total ...	10,827 10	355 10	785 20	10,397 0	1,247	2,723	

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

FORM No. 54.

Forest Department, Bombay, Southern Circle.

Outturn (in cubic feet solid) of Timber and Fuel during the year 1891-92 and Agency of Exploitation.

Division	Timber in the rough Logs					Timber in the rough Poles.					Sawn or Squared Timber					Miscellaneous.					Fuel.					Total.
	Government.	Purchasers.	Free grants	Right-holders.	Total.	Government.	Purchasers.	Free grants.	Right-holders	Total.	Government.	Purchasers.	Free grants.	Right-holders.	Total.	Government.	Purchasers.	Free grants.	Right-holders.	Total.	Government.	Purchasers.	Free grants.	Right-holders	Total.	Outturn.
	C. ft.	C. ft.	C. ft.	C.ft	C. ft.	C. ft.	C ft.	C. ft.	C.ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Northern Division of Kanara	33,965	38,144	4,303	..	76,312	45,951	29	200	...	46,171	260,930	7,910	7,186	...	276,026	Bamboos No. 1,905 Sandalwood Trees 139 1,630	Bamboos No. 2,250,048	Bamboos No. 5,350	...	Bamboos No. 2,257,303 Sandalwood Trees 139 1,630	471,378	216,293	1,813	...	689,484	Bamboos No. 2,257,303 Sandalwood Trees 139 1,089,623
Central Divison of Kanara	120,161	38,826	26,749	..	175,736	10,371	767	2,813	...	13,951	9,538	...	...	...	9,538	Bamboos No. 1,158 Sandalwood Khandis 18-18-10½ 25,368	Bamboos No. 881,962 2,233	Bamboos No. 6,150	...	Bamboos No. 889,270 Sandalwood Khandis 18 18-10½ 27,606	9,528	1,141,015	...	...	1,150,543	Bamboos No. 889,270 Sandalwood Khandis 18-18-10½ 1,377,374
Southern Division of Kanara	206	40,984	16,153	..	57,343	...	...	85	.	85	19,080	...	..	.	19,080	Sandalwood Khandis 36-16-7 36	Bamboos No. 144,619	Bamboos No. 3,000	...	Bamboos No. 147,619 Sandalwood Khandis 36-16-7 36	14,040	171,576	...	...	185,616	Bamboos No. 147,619 Sandalwood Khandis 36-16-7 262,160
Belgaum Division	...	583	.	.	583	34,902	1,542	768	...	37,212	8,916	533	...	...	9,449	Bamboos No. 700 Sandalwood Pieces 964 10,510	Bamboos No. 401,337 5	.....	...	Bamboos No. 402,037 Sandalwood Pieces 964 10,515	3,245,308	382,036	...	...	3,627,344	Bamboos No. 402,037 Sandalwood Pieces 964 3,685,103
Dharwar do.	..	...	...		...	69,334	236	239	...	69,809	...	...	...	...	...	.....	Bamboos No. 335,247	.....	...	Bamboos No. 335,247	154,368	59,462	...	...	213,830	Bamboos No. 335,247 283,639
Bijapur do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	2,659	.....	...	2,659	...	236,412	...	...	236,412	239,071
Kolaba-Ratnagiri Division	...	...	...	...	..	109,635	598.120	16,660	...	724,415	...	...	...	...	...	.....	118,894	.....	...	118,894	2,375	138,211	...	...	140,586	983,896
Total	154,232	108,537	47,205	...	309,974	270,193	600,685	20,765	...	891,643	298,464	8,443	7,186	...	314,093	37,544 Bamboos No. 3,763 Sandalwood Khandis 55-14 17½ Sandalwood Pieces 964 Sandalwood Trees 139	123,796 Bamboos No. 4,013,213	..... Bamboos No. 14,500	...	161,340 Bamboos No. 4,031,476 Sandalwood Khandis 55-14-17½ Sandalwood Pieces 964 Sandalwood Trees 139	3,896,997	2,345,005	1,813	...	6,243,815	7,920,885 Bamboos No. 4,031,476 Sandalwood Khandis 55-14-17½ Sandalwood Pieces 964 Sandalwood Trees 139

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

FORM No. 55.

Forest Department, Bombay, Southern Circle.

Outturn of Minor Forest Produce.

Division.	Description of Produce.	Produce removed or utilized. By Government Agency. Quantity.	By Government Agency. Value.	By Purchasers. Quantity.	By Purchasers. Value.	By Free Grants. Quantity.	By Free Grants. Value.	By Right-holders. Quantity.	By Right-holders. Value.	Total. Quantity.	Total. Value.
			Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.
Northern Division of Kánara.	Charcoal ... ... Cubic feet.	...	...	500	13 15 0	...	...	...	...	500	13 15 0
	Grazing fees	...	...	...	7,376 8 6	...	...	...	...	...	7,376 8 6
	Honey	...	...	...	562 5 4	...	...	...	...	...	562 5 4
	Stones ... ... Cubic feet.	...	...	4,600	7 3 0	...	...	...	...	4,600	7 3 0
	Myrabolams ... Khandis.	1,536 5	29,647 5 4	...	...	...	...	...	...	1,536 5	29,647 5 4
	Pepper	...	...	...	15 0 0	...	...	...	...	...	15 0 0
	Shigekai	...	...	...	800 0 0	...	...	...	...	...	800 0 0
	Cinnamon bark	...	...	...	75 0 0	...	...	...	...	...	75 0 0
	Tapping fees on baini trees ...	...	...	813	50 13 0	...	...	...	...	813	50 13 0
	Canes ... ... Head-loads.	...	...	78	19 8 0	...	...	...	...	78	19 8 0
	Shindoli branches and leaves... ... ,,	...	...	233	7 4 6	...	...	...	...	233	7 4 6
	Wild termeric	...	...	...	7 0 0	...	...	...	...	...	7 0 0
	Nux vomica	...	...	...	13 8 0	...	...	...	...	...	13 8 0
	Shombe bark	...	...	...	40 10 0	...	...	...	...	...	40 10 0
	Goting	...	...	...	15 0 0	...	...	...	...	...	15 0 0
	Fruits	...	...	...	25 4 3	...	...	...	...	...	25 4 3
	Irai seed ... ... Lbs.	7	0 9 0	...	...	...	...	...	...	7	0 9 0
	Rági ... ...Seers.	24	1 0 0	...	...	...	...	...	...	24	1 0 0
	Total ...	...	29,648 14 4	...	9,028 15 7	...	...	...	...	...	38,677 13 11
Central Division of Kánara.	Grass ... ... Bundles.	63,320	197 14 0	413,750	206 14 0	...	...	...	...	477,070	404 12 0
	Dust grass ... ... Head-loads.	2	0 3 0	...	...	...	...	...	...	2	0 3 0
	Shigekai ... ... Khandis.	2 13 22½	68 12 11	...	...	...	...	...	...	2 13 22½	68 12 11
	Myrabolams ... ,,	425 12 1	4,920 0 5	...	...	...	...	...	...	245 12 1	4,920 0 5
	Grazing fees	...	...	...	7,759 9 6	...	...	...	...	...	7,759 9 6
	Honey	...	...	...	1,498 8 0	...	...	...	...	...	1,498 8 0
	Rámfal and Rámpatri	...	...	...	1,936 6 3	...	...	...	...	...	1,936 6 3
	Pepper	...	...	...	190 0 0	...	...	...	...	...	190 0 0
	Cinnamon	...	...	...	141 0 0	...	...	...	...	...	141 0 0
	Catechu	...	...	...	1,460 0 0	...	...	...	...	...	1,460 0 0
	Nux vomica	...	...	...	71 8 0	...	...	...	...	...	71 8 0
	Canes ... ... Head-loads.	...	...	156½	43 6 0	8	2 0 0	...	...	164½	45 6 0
	Bamboos on contract	...	...	150,000	87 0 0	...	...	...	...	150,000	87 0 0
	Grass...	...	...	...	14 10 0	...	...	...	...	...	14 10 0
	Tapping fees on baini trees ...	...	...	374	23 6 0	...	...	...	...	374	23 6 0
	Baini trees	...	...	1	1 0 0	...	...	...	...	1	1 0 0
	Earth and stones ... Cubic feet.	...	...	7,542	16 4 0	...	...	...	...	7,542	16 4 0
	Quarry fees...	...	...	...	5 4 0	...	...	...	...	...	5 4 0
	Cocoanuts, supári and Jack fruits	...	...	...	8 2 9	...	...	...	...	...	8 2 9
	Total ...	...	5,181 14 4	.	13,456 14 6	...	2 0 0	...	...	...	18,640 12 10
Southern Division of Kánara.	Myrabolams ... Khandis.	1,564 6	20,500 0 0	...	...	...	...	...	...	1,564 6	20,500 0 0
	Shigekai and soap-nuts. ,,	65 6	1,555 4 4	...	...	...	...	...	...	65 6	1,555 4 4
	Grazing fees	...	...	...	10,453 12 8	...	...	...	...	...	10,453 12 8
	Honey	...	...	...	1,777 0 0	...	...	...	...	...	1,777 0 0
	Canes ... ... Head-loads.	...	...	380	180 4 0	11	2 12 0	...	...	391	183 0 0
	Thorns ... ... Cart-loads.	...	...	35	5 0 0	...	...	...	...	35	5 0 0
	Stones ... ... ,,	...	...	1,608	100 8 0	...	...	...	...	1,608	100 8 0
	Palm trees ... . No.	...	...	68	68 0 0	...	...	...	...	68	68 0 0
	Tapping fees	...	...	...	174 7 0	...	...	...	...	...	174 7 0
	Grass sheves	...	...	14,000	7 0 0	...	...	...	...	14,000	7 0 0
	Wild arrowroot bulbs	...	...	...	25 0 0	...	...	...	...	...	25 0 0
	Rámpatri, Rámfal and Cinnamon,	...	...	...	845 14 0	...	...	...	...	...	845 14 6
	Wild pepper	...	...	...	54 11 0	...	...	...	...	...	54 11 0
	Catechu	...	...	...	3,481 0 0	...	...	...	...	...	3,481 0 0
	Alex situ	...	...	...	13 0 8	...	...	...	...	...	13 0 8
	Tali bark ... ...Loads.	...	...	41	12 12 0	...	...	...	...	41	12 12 0
	Total ...	...	22,055 4 4	...	17,198 5 10	...	2 12 0	...	...	...	39,256 6 2
Belgaum Division.	Myrabolams ... Khandis.	5,148 1	80,602 0 0	...	...	...	...	...	...	5,148 1	80,602 0 0
	Canes... ... ...Head-loads.	...	...	103	6 7 0	...	...	...	...	103	6 7 0
	Grazing fees	...	...	...	35,914 4 6	...	...	...	...	...	35,914 4 6
	Grass from Kurans	...	...	...	6,193 0 9	...	...	...	...	...	6,193 0 9
	Grass... .. .. Bundles.	...	...	382	5 14 6	...	...	...	...	382	5 14 6
	Tapping fees on toddy trees ...	...	...	20	1 13 0	...	...	...	...	20	1 13 0
	Stone ... ... Cubic feet.	...	...	10,032	57 5 7	...	...	...	...	10,032	57 5 7
	Do. ... ... Cart-loads.	...	...	6,387	497 7 0	...	...	...	...	6,387	497 7 0
	Do. ... Donkey-loads.	...	...	7,986	112 9 0	...	...	...	...	7,986	112 9 0
	Earth .. ... Cart-loads.	...	...	64	4 0 0	...	...	...	...	64	4 0 0
	Do. ... ...Head-loads.	...	...	295	1 9 9	...	...	...	...	295	1 9 9
	Sand ... ... Cubic feet.	...	...	7,266	4 8 8	...	...	...	...	7,266	4 8 8
	Mooram ... ... ,,	...	...	300	0 6 0	...	...	...	...	300	0 6 0
	Concrete ... ... ,,	...	...	2,400	3 0 0	...	...	...	...	2,400	3 0 0
	Thorns ... .. Cart-loads.	...	...	64	30 12 0	...	...	...	...	64	30 12 0
	Do. ... Bullock-loads.	...	...	421	71 12 6	...	...	...	...	421	71 12 6
	Do. ... ... Head-loads.	...	...	951	46 4 3	...	...	...	...	951	46 4 3
	Tarwad branches ... ,,	...	...	3,698	346 11 0	...	...	...	...	3,698	346 11 0
	Bundirgi leaves ... ,,	...	...	157	16 2 0	...	...	...	...	157	16 2 0
	Wild date palm leaves ... ... Cart-loads.	...	...	683	356 12 0	...	...	...	...	683	356 12 0
	Do. do. ... Head-loads.	...	...	5,434	169 13 0	...	...	...	...	5,434	169 13 0
	Shigekai ... ... Maunds.	...	...	2,400	1,147 0 0	...	...	...	...	2,400	1,147 0 0
	Honey ... ... ,,	...	...	368	528 0 0	...	...	...	...	368	528 0 0
	Gum... ... ... ,,	...	...	358	830 0 0	...	...	...	...	358	830 0 0
	Cinnamon ... ... ,,	...	...	40	65 0 0	...	...	...	...	40	65 0 0
	Charcoal . ... Cubic feet.	21,797	2,886 9 10	...	...	...	...	...	...	21,797	2,886 9 10
	Mattibark ... ... Cart-loads.	...	...	3	3 14 0	...	...	...	...	3	3 14 0
	Fruit farm	...	...	...	5 9 0	...	...	...	...	...	5 9 0
	Ashani leaves ..Head-loads.	...	...	351	10 15 6	...	...	...	...	351	10 15 6
	Kárvi ... ... Cart-loads.	...	...	54	40 8 0	...	...	...	...	54	40 8 0
	Minor produce.	...	...	...	391 0 0	...	...	...	...	...	391 0 0
	Total ...	...	83,048 9 10	...	46,862 7 0	...	...	...	...	...	1,29,911 0 10

FORM No. 55—*continued.*

Division.	Description of Produce.	Produce removed or utilized.									
		By Government Agency.		By Purchasers.		By free Grants.		By Right-holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs. a. p.		Rs. a. p.						Rs. a. p.
Dhárwár Division.	Grazing fees	...	...	...	27,572 13 11	...	...	...	...	...	27,572 13 11
	Honey	...	...	...	190 0 0	...	...	...	...	...	190 0 0
	Fruit	...	...	...	87 9 4	...	...	...	...	...	87 9 4
	Marking nuts	...	...	...	45 14 0	...	...	...	...	...	45 14 0
	Karanj seed	...	...	...	639 0 0	...	...	...	...	...	639 0 0
	Babul pods	...	...	...	82 0 0	...	...	...	...	...	82 0 0
	Myrabolams ... Khandis	15 1	184 4 0	...	11 0 0	...	...	...	...	15 1	195 4 0
	Stones ... ... Cubic feet	...	...	43,490	236 3 7	...	...	...	...	43,490 0	236 3 7
	Earth ... ... Do.	...	...	138	4 11 0	...	...	...	...	138 0	4 11 0
	Tapping fees on toddy trees ..	...	...	1,601	100 1 0	...	...	...	...	1,601 0	100 1 0
	Grass ... ... Loads	...	...	3,990	122 13 0	...	...	...	...	3,990 0	122 13 0
	Do. pullies	3,23,695 0	788 7 0	1,44,575	144 11 11	...	...	...	...	468,270 0	933 2 11
	Do. for brooms ... Loads	...	...	34	2 8 6	...	...	...	...	34 0	2 8 6
	Do. for thatching ... Do.	...	...	413	6 7 3	...	...	...	...	413 0	6 7 3
	Do. in kurans and closed numbers ... Auctioned	...	...	...	1,382 3 0	...	...	...	...	...	1,382 3 0
	Toddy tree branches. Cart-loads.	...	...	10	11 4 0	...	...	...	...	10 0	11 4 0
	Do. do. donkey do.	...	...	389	24 5 0	...	...	...	...	389 0	24 5 0
	Do. do. Head-loads	...	...	169	2 10 3	...	...	...	...	169 0	2 10 3
	Thorns ... ...Loads	...	...	2,744	202 5 0	...	...	...	...	2,744 0	202 5 0
	Manure ... ... Auctioned	...	...	...	1 10 6	...	...	...	...	...	1 10 6
	Wire creepers ... ...Loads	...	...	5	0 5 0	...	...	...	...	5 0	0 5 0
	Leaves green ... ... Do.	...	...	34	13 2 0	...	...	...	...	34 0	13 2 0
	Total ...	...	972 11 0	...	30,883 10 3	...	...	...	...	...	31,856 5 3
Bijápur Division	Stones ... ... Cubic feet	...	...	150,184	3,030 2 9	...	...	...	...	150,184 0	3,030 2 9
	Earth ... Do.	...	...	10,993	197 9 6	...	...	...	...	10,993 0	197 9 6
	Tarwad bark	...	...	...	1,600 0 0	...	...	...	...	...	1,600 0 0
	Total ...	...	...	...	4,827 12 3	...	...	...	...	...	4,827 12 3
Kolába, Ratnagiri Division	Grass and Grazing fees	...	...	...	2,560 0 6	...	...	...	...	...	2,560 0 6
	Thorns and fruits...	...	...	...	139 3 9	...	...	...	...	...	139 3 9
	Myrabolams and Shigekai ...	...	...	...	1,053 12 0	...	...	...	...	...	1,053 12 0
	Myrabolam ... Khandis	0 18 0	30 9 7	...	...	...	...	...	...	0 18 0	30 9 7
	Apta leaves...	...	...	...	631 0 0	...	...	...	...	...	631 0 0
	Kárvi	...	...	...	21 0 0	...	...	...	...	...	21 0 0
	Total ...	...	30 9 7	...	4,405 0 3	...	...	...	...	...	4,435 9 10

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

FORM No. 56.

Forest Department, Bombay, Southern Circle.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1891-92.

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Balance at Commencement of the Year.				
Northern Division of Kánara.				
Teakwood logs	6,603	184,669		
Blackwood do	234	6,323		
Junglewood logs	698	19,565		
Teak round pieces	111	282		
Do. sleepers	650	975		
Do. slabs	10,891	3,824		
			19,187	215,638
Central Division of Kánara.				
Teak round pieces	3,064	12,057		
Do. poles...	5,388	12,980		
Do. logs	3,776	45,152		
Do. sleepers	847	1,330		
Do. slabs...	8,569	6,958		
Adzed rectangular sleepers	9	18		
Sitting boards	72	...		
Round teak board	1	...		
Miscellaneous pieces	...	27		
Blackwood logs	324	2,140		
Do. poles	133	402		
Junglewood logs...	2,785	52,444		
Jirâiti pieces	967	1,261		
			25,835	134,770
Southern Division of Kánara.				
Teak	266	5,319		
Blackwood	4	71		
Junglewood	524	10,124		
			794	15,544
Belgaum Division.				
Teak poles	9,398	12,964		
Junglewood poles	2,614	3,090		
			11,012	16,054
Dhárwár Division.				
Teak rafters	1,661	7,535		
Mattí rafters	9	29		
Blackwood rafters	2	9		
Jirâiti pieces	36	40		
			1,708	7,613
Kolába Division.				
Teak pieces of sorts	1,864	6,000		
Miscellaneous pieces	611			
			2,475	6,000
Ratnágiri Division.				
Miscellaneous pieces	94	230		
			94	230
Total Balance ...			62,005	395,849
Received from the Forests in Depôts.				
Teak logs	17,039	359,464		
Do. poles	25,100	80,189		
Do. pieces	6,119	25,098		
Do. rafters	18,339	59,985		
Do. sleepers	63	63		
Teak pieces of different classes ...	26,855	110,685		
Miscellaneous pieces	7,048			
Blackwood logs	989	21,298		
Do. poles...	95	200		
Do. pieces	60	270		
Junglewood logs	3,170	67,373		
Do. poles	5,623	8,068		
Do. pieces	898	3,406		
Adzed rectangular sleepers	44	62		
Round sleeper pieces	528	792		
Jirâiti pieces	7,414	15,416		
			119,384	744,989

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
TIMBER.				
Removed by Purchasers from Depôts.				
Teak logs	10,523	231,157		
Do. poles	31,005	84,309		
Do. round pieces	1,430	7,336		
Do. sleepers	833	1,288		
Do. round sleeper pieces	525	787		
Teak pieces...	1,977	99		
Do. slabs	6,985	5,580		
Do. rafters	8,749	30,244		
Teak pieces of sorts	28,573	116,358		
Miscellaneous pieces	7,711			
Sitting boards	32	...		
Teak chips and stacks	51	...		
Blackwood logs	588	14,295		
Do. poles	111	417		
Do. pieces...	5	11		
Junglewood logs	2,566	45,327		
Do. poles...	8,097	13,542		
Do. pieces	266	741		
Jirâiti pieces	6,245	13,147		
Mattí rafters	9	29		
Shiwani wood	...	1		
			116,881	563,668
Sold locally.				
Teakwood logs	130	836		
Do. poles	837	1,229		
Do. pieces	412	433		
Do. planks	7	21		
Blackwood logs	53	185		
Do. pieces...	16	31		
Junglewood logs	164	981		
Do. poles...	813	1,003		
Do. pieces	753	1,012		
Do. rafters	26	241		
Do. stakes	2,548	...		
Casuarina poles	81	270		
			5,840	6,242
Used by the Department.				
Junglewood logs	156	2,082		
Teak logs	26	392		
Do. rafters	9	35		
Do. slabs	2,010	842		
Blackwood logs	2	19		
Miscellaneous	..	9		
			2,203	3,369
Transferred to other Sale Depôts.				
Teak logs	175	5,662		
			175	5,662
Written off as lost.				
Teak rafters	46	128		
			46	128
Balance at close of the Year.				
Northern Division, of Kánara.				
Teakwood logs	9,010	254,986		
Do. round pieces	111	282		
Do. sleepers	650	975		
Do. slabs	8,094	2,665		
Do. poles	7,558	10,116		
Blackwood logs	489	11,957		
Junglewood logs	1,506	43,794		
Do. poles	7	34		
			27,425	329,809
Central Division of Kánara.				
Teak logs	7,587	90,908		
Do. poles	1,163	6,247		
Do. round pieces	5,770	29,630		
Do. sleepers	301	374		
Do. slabs	13,936	9,385		
Do. round board...	1	...		
Do. ends and pieces	2,247	2,730		
Blackwood logs	472	3,566		
Do. poles	168	486		
Sitting boards	40	...		
Jirâiti pieces	975	1,272		
Miscellaneous pieces	.	12		
Junglewood logs	2,270	45,983		
			34,936	190,593
Southern Division of Kánara.				
Teakwood	480	9,654		
Do. sleepers	23	23		
Do. round sleeper pieces ...	3	5		
Junglewood	624	12,241		
			1,130	21,923

FORM No. 56—*continued.*

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Received from the Forests and sold locally.				
Teakwood logs	130	603		
Do poles...	837	1,462		
Do. pieces	412	433		
Blackwood logs	63	185		
Do. pieces	16	31		
Junglewood logs	164	828		
Do. poles	813	1,001		
Do. pieces	753	1,165		
Teak planks	7	21		
Casuarina poles	81	270		
Junglewood rafters	36	241		
Do. stakes	2,548	..	5,840	6,242
Received by conversion in Depôts.				
Teak sleepers	194	212		
Do. slabs	11,565	6,695		
Teak chips—stacks	51	...		
Miscellaneous teak ends and pieces	2,247	2,730	*14,057	*9,637
Received by transfer from sale Depôts.				
Teak logs	175	5,662	175	5,662
Total, Timber ...	...	...	201,461	1,162,370
Balance at commencement of the year.				
Northern Division of Kánara.				
Firewood	...	23,040	...	23,040
Central Division of Kánara.				
Firewood	..	2,352	...	2,352
Southern Division of Kánara.				
Firewood	...	6,174	...	6,174
Belgaum Division.				
Firewood	...	228,206	...	228,206
Dhárwár Division.				
Firewood	...	56,322	...	56,322
Total Balance ...	...	...	...	316,094
Received from the Forests in Depôts.				
Firewood	..	2,742,792		
Charcoal	...	21,707	...	2,764,499
Received from the Forests and sold locally.				
Firewood	...	7,954	...	7,954
Total, Firewood ...	...	.	...	3,088,547
Received from the Forests in Depôts.				
Bamboos	3,267	...	3,267	...
Received from the Forests and sold locally.				
Bamboos	2,846	..	2,846	...
Total, Bamboos ...	...	...	6,113	...
Balance at commencement of the year.				
Central Division of Kánara.				
Sandalwood ... ... Trees.	7	...	..	...
Southern Division of Kánara.				
Sandalwood ... ... Khandis.	0-1-8-18	...	...	..
Do. oil ... . Tolas.	206	..	...	...
Dhárwár Division.				
Sandalwood . ...Roots.	60	..	...	...
Do. .. ..Trees.	5	...	...	..

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity	Total of each head. Cubic Feet.
TIMBER—*continued*..				
Balance at close of the year —*continued.*				
Belgaum Division.				
Teak logs	58	538		
Do. poles	110	461		
Junglewood	5	68		
Do. poles...	10	53		
Jiráiti pieces	118	218	301	1,338
Dhárwár Division.				
Teak rafters	11,196	36,763		
Blackwood rafters	8	27		
Junglewood do.	55	194		
Teak jiráiti do.	1,079	2,080	12,336	39,064
Kolába Division.				
Teak pieces of sorts	132	426	132	426
Ratnágiri Division.				
Miscellaneous pieces	56	137	56	137
Total, Balance ...	...	...	76,316	584,290
Total, Timber ...	...	...	201,461	1,162,370
FIREWOOD.				
Removed by purchasers from Depôts.				
Firewood	...	2,802,717		
Charcoal	...	21,797	...	2,824,514
Sold locally.				
Firewood	..	7,954	...	7,954
Balance at close of the year.				
Central Division of Kánara.				
Firewood	...	2,596	...	2,596
Southern Division of Kánara.				
Firewood	...	12,762	...	12,762
Belgaum Division.				
Firewood	...	212,130	...	212,130
Dhárwár Division.				
Firewood	...	28,332	...	28,332
Ratnágiri Division.				
Firewood	..	250	...	250
Total Balance ..	...	...	...	256,079
Total, Firewood ...	...	...	...	3,088,547
BAMBOOS.				
Removed by purchasers from Depôts.				
Bamboos	900	...	900	...
Sold locally.				
Bamboos	2,846	...	2,846	...
Used by the Department.				
Bamboos	2,317	...	2,317	...
Balance at close of the year.				
Belgaum Division.				
Bamboos	50	...	50	..
Total, Bamboos ...	...	...	6,113	...
SANDALWOOD.				
Removed by purchasers from Depôts.				
Sandalwood ... ...Tree ...	101	...	...	...
Do. ... . Roots ...	745	...	...	.
Do. ... .Branches...	11	...	...	...
Do. ... ...Pieces ...	40	...	...	...
Do. ... ...Cart-loads.	2	..	...	..
Do. ... ...Chips ..	...	0-1-0-0	...	..
Do. ... ...Billets ..	3,487	...	...	...
Do. ... . Do. ...	..	0-7-15-25	...	...
Do. ... ...Khandis ..	...	0-1-8-18	...	
Do. oil, Tolas	210½	...	...	
Do. chips and white wood Stacks.	4		.	

* Of these, 51 stacks teak chips and 32 slabs of 99 cubic feet appertain to Northern Division, Kánara, and the rest to Central Division, Kánara. These materials are not the outcome of any timber converted during 1891-92, but of that converted in past years, which were discovered by Divisional Officers during their inspection of the stock at Depôts. Hence they have been accounted for in this return under "Received by conversion in Depôts."

FORM No. 56—*concluded.*

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Received from the Forests in Depôts.				
Sandalwood ... ... Trees	438	...		
Do. ... ... Roots.	239	...		
Do. ... ... Branches.	34	...		
Do. ... ... Pieces.	40	...		
Do. ... ... Billets.	1,470	...		
Do. ... ... Cart-loads.	2	...		
Do. Chips ... ... Carts.	5	...		
Do. .. .. Billets.	...	0-7-15.25		
Received from the Forests and sold Locally.				
Sandalwood pieces	966	...		
Received by Conversion in Depôts.				
Sandalwood .. .. Billets.	2,088	...		
Do. ... ... Roots.	590	...		
Do chips and white wood ... ... Stacks.	5	...		
Do. ... ... Chips.	...	0-4-9-0		
MINOR PRODUCE.				
Balance at close of the year.				
Northern Division of Kánara.				
Myrabolams ... ...Khandis.	...	27		27
Central Division of Kánara.				
Shigekai ... .Khandis.	...	1-14-18½		
Grass... ... ...Bundles.	180,243	...		
			180,243	1-14-18½
Southern Division of Kánara.				
Myrabolams ... ...Khandis.	...	301-14-1		
Shikekai ... ... Do.	...	6-19-0		
			...	308-13-1
Belgaum Division.				
Myrabolams .. ..Khandis.	...	30-12-0		
			...	30-12-0
Total Balance ...	...	...	180,243	367-19-10½
Received from the Forests in Depôts.				
Myrabolams ... ...Khandis.	...	8,519-1-25½		
Shigekai ... ... Do.	...	68-1-11¾		
Grass ... ...Bundles.	495,020	...		
Divi Divi seed ... ... Bags.	18	...		
			495,020 18	8,587-3-9½
Total, Minor Produce ...			675,263 18	8,955-3-0¾

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Sold Locally.				
Sandalwood ... ... Pieces.	966	...		
Converted in Depôts.				
Sandalwood ... ... Trees.	339	...		
Balance at close of the Year.				
Central Division of Kánara.				
Sandalwood ... ... Trees.	10	...		
Do. ... ... Billets.	70	...		
Do. ... ... Chips.	...	0-3-0		
Do. and white wood ... Stacks.	1	...		
Southern Division, Kánara.				
Sandalwood ... Chips and Carts.	5	...		
Do. ... ... Billets.	1	...		
Do. oil ... Tolas.	85½	...		
Dhárwár Division.				
Sandalwood ... ... Roots.	144	...		
Do. ... ... Branches.	23	...		
Removed by Purchasers from Depôts.				
Myrabolams ... ... Khandis.	...	8,209-6-26½		
Shigekai ... ... Do.	...	34-10-25¼		
Grass... ... ... Bundles.	387,015	...	387,015	8,303-17-24
Used by the Department.				
Grass ... ... Bundles.	10,200	...	10,200	...
Balance at close of the Year.				
Northern Division of Kánara.				
Myrabolams ... ... Khandis.	...	34		
Divi Divi seed ... ... Bags.	18	...	18	34
Central Division of Kánara.				
Myrabolams ... ...Khandis.	...	1-18-27		
Shigekai ... ... Do.	...	1-16-11¾		
Grass ... ... Bundles.	134,993	...	134,993	3-15-10¾
Southern Division of Kánara.				
Myrabolams ... ... Khandis.	...	433-0-1		
Shigekai ... ... Do.	...	40-7-21	...	473-7-22
Belgaum Division.				
Myrabolams ... ... Khandis.	...	140-2-0	...	140-2-0
Dhárwár Division.				
Grass ... ... Bundles.	143,055	...	143,055	...
Total Balance ...	...	...	278,048 18	651-5-4¾
Total, Minor Produce ...	...	...	675,263 18	8,955-3-0¾ ...

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

FORM No. 57.

Forest Department, Bombay, Southern Circle.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1891-92.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs. a. p.			Rs. a. p.	Rs. a. p.	Rs. a. p.	
TIMBER.									
Northern Division of Kánara.									
Teakwood logs	6,003	184,669	2,45,611 0 0	9,010	254,986	3,25,786 0 0	80,175 0 0	.....	
Blackwood logs	234	6,323	5,564 0 0	489	11,957	11,479 0 0	5,915 0 0	.....	
Junglewood logs	698	19,565	17,216 0 0	1,506	43,794	35,035 0 0	17,819 0 0	.....	
Teak round pieces	111	282	166 0 0	111	282	*55 0 0	.....	111 0 0	The price they would fetch now if sold.
Do. sleepers	650	975	812 0 0	650	975	*325 0 0	.....	487 0 0	
Do. slabs	10,891	3,824	800 0 0	8,094	2,665	108 0 0	.....	692 0 0	
Junglewood poles	...	...	.....	7	34	5 0 0	5 0 0	.....	
Teakwood poles	...	...	.....	7,558	15,116	911 0 0	911 0 0	.....	
Total ...	...	...	2,70,160 0 0	.....	...	3,73,704 0 0	1,04,825 0 0	1,290 0 0	
Central Division of Kánara.									
Logs	6,235	99,742	93,623 0 0	†10,329	140,457	1,34,840 0 0	41,217 0 0	.....	†Includes teak, blackwood and Junglewood
Teak round pieces	3,064	12,057	4,600 0 0	5,776	20,630	5,776 0 0	1,176 0 0	.....	
Do. sleepers	868	1,348	555 0 0	301	874	260 0 0	.....	295 0 0	
Do. slabs...	8,509	6,953	690 0 0	13,936	9,385	770 0 0	80 0 0	.....	
Do. poles...	5,338	12,980	5,186 0 0	1,163	6,247	1,990 0 0	.....	3,196 0 0	
Sitting boards	72	...	10 0 0	40	...	6 0 0	.....	4 0 0	
Miscellaneous scantlings	...	27	12 0 0	.....	12	10 0 0	.....	2 0 0	
Round teak board	1	...	0 5 0	1	...	0 5 0	.....	.....	
Blackwood poles...	183	402	135 0 0	168	486	84 0 0	.....	51 0 0	
Jeráiti wood pieces	967	1,261	91 0 0	975	1,272	91 0 0	.....	.....	
Teak ends and pieces	...	...	.....	2,247	2,730	55 0 0	55 0 0	.....	
Total ...	...	...	1,04,882 5 0	.....	...	1,43,862 5 0	42,528 0 0	3,548 0 0	
Southern Division of Kánara.									
Teakwood...	266	5,349	5,962 0 0	480	9,654	14,479 0 0	8,517 0 0	.....	
Blackwood	4	71	61 0 0	.....	...	.....	.....	61 0 0	
Junglewood	524	10,124	8,224 0 0	624	12,242	12,242 0 0	4,018 0 0	.....	
Sleepers	...	...	.....	23	23	46 0 0	46 0 0	.....	
Round sleeper pieces	...	...	.....	3	5	2 0 0	2 0 0	.....	
Total ...	...	...	14,247 0 0	.....	...	26,769 0 0	12,583 0 0	61 0 0	
Belgaum Division.									
Teak logs	...	...	.....	58	538	387 0 0	387 0 0	.....	
Do. poles	9,398	12,964	2,420 0 0	110	461	37 0 0	.....	2,383 0 0	
Junglewood logs...	...	...	.....	5	68	38 0 0	38 0 0	.....	
Do. poles	2,514	3,090	635 8 0	10	53	1 0 0	.....	634 8 0	
Jeráiti pieces	...	...	.....	118	218	65 0 0	65 0 0	.....	
Total ...	...	...	3,055 8 0	.....	...	528 0 0	490 0 0	3,017 8 0	
Dhárwár Division.									
Teak rafters	1,061	7,535	2,800 0 0	11,196	36,763	13,000 0 0	10,267 0 0	.....	
Matti do.	9	29		55	194	60 0 0			
Blackwood rafters	2	9		6	27	7 0 0			
Jiraiti pieces	36	40	20 0 0	1,079	2,080	390 0 0	370 0 0	.....	
Total ...	...	...	2,820 0 0	.....	...	13,457 0 0	10,637 0 0	.....	
Kolába-Ratnágiri Division.									
Teak poles and miscellaneous pieces.	2,560	6,230	890 0 0	188	563	168 0 0	.....	722 0 0	
Total ...	...	...	890 0 0	.....	...	168 0 0	.....	722 0 0	
Total, Timber ...	...	...	3,96,063 13 0	.....	...	5,58,488 5 0	171,063	8,628 8 0	
FIREWOOD.									
Northern Division of Kánara.									
Firewood ... ... Tons.	400	23,040	2,525 0 0	.....	...	.....	.....	2,525 0 0	
Central Division of Kánara.									
Firewood ... ... Stacks.	38	684	28 0 0	.....	...	.....	.....	28 0 0	
Do. ... ... Tons...	17	1,568	136 0 0	.....	...	.....	.....	136 0 0	
Do. ... ... Cubic feet.	...	...	.....	.....	2,596	74 0 0	74 0 0	.....	
Total ...	...	...	164 0 0	.....	...	74 0 0	74 0 0	164 0 0	
Southern Division of Kánara.									
Firewood... ... ...Stacks.	343	6,174	257 0 0	709	12,762	502 0 0	245 0 0	.....	
Belgaum Division.									
Firewood ... . Stacks.	7,261	221,855	10,310 0 0	6,160	192,544	8,647 0 0	.....	1,663 0 0	
Running ... ... do ...	...	273	27 8 0	.....	18,203	1,835 0 0	1,807 8 0	.....	
Lighting ... ... Firewood.	...	1,844	67 3 2	.....	1,392	69 0 0	1 12 10	.....	
Firewood ... ... Head-loads.	...	4,734	137 0 0	.....	...	.....	.....	147 0 0	
Total ...	...	...	10,551 11 2	.....	...	10,551 0 0	1,809 4 10	1,810 0 0	

FORM No. 57—*continued.*

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs. a. p.			Rs. a. p.	Rs. a. p.	Rs. a. p.	
FIREWOOD—*continued.*									
Dhárwár Division.									
Firewood ... ... Stacks.	3,129	56,332	3,129 0 0	1,574	28,332	1,574 0 0	.....	1,555 0 0	
Kolába-Ratnágiri Division.									
Firewood ... ... Khandis.	...	...	.....	10	250	1 0 0	1 0 0	.....	
Total, Firewood ...	...	...	16,626 11 2	.....	...	12,702 0 0	2,129 4 10	6,054 0 0	
BAMBOOS.									
Belgaum Division.									
Bamboos	...	...	.....	50	...	1 3 0	1 3 0	.....	
SANDALWOOD.									
Central Division of Kánara.									
Trees	7	...	15 0 0	10	...	20 0 0	5 0 0	.....	
Billets and chips ... Khandis.	...	...	.....	.....	0 18 9½	75 0 0	75 0 0	.....	
White wood ... ... Stacks.	...	...	.....	1	...	5 0 0	5 0 0	.....	
Total ...	...	...	15 0 0	.....	...	100 0 0	85 0 0	.....	
Southern Division of Kánara.									
Sandalwood ... ... Khandis.	...	1 8 18	9 0 0	.....	0 14 0	3 0 0	.....	6 0 0	
Sandal oil ... ... Tolás.	296	...	55 0 0	85½	...	22 0 0	.....	33 0 0	
Sandal chips ... ... Carts.	...	...	.....	5	...	22 0 0	22 0 0	.....	
Total ...	...	...	64 0 0	.....	..	47 0 0	22 0 0	39 0 0	
Dhárwár Division.									
Sandalwood ... ... Roots.	60	...	50 0 0	144	...	120 0 0	70 0 0	.....	
Do. ... ... Trees.	5	...	10 0 0	.....	...	.....	.....	10 0 0	
Do. ... ... Branches.	...	...	.....	23	...	2 0 0	2 0 0	.....	
Total ...	...	...	60 0 0	.....	...	122 0 0	72 0 0	10 0 0	
Total, Sandalwood ...	...	...	139 0 0	.....	...	269 0 0	179 0 0	49 0 0	
MINOR PRODUCE.									
Northern Division of Kánara.									
Myrabolams ... ... Khandis.	...	27	405 0 0	.....	34	674 0 0	269 0 0	.....	
Divi-Divi seed ... ... Bags.	...	...	.....	18	...	25 0 0	25 0 0	.....	
Total ...	...	...	405 0 0	.....	...	699 0 0	294 0 0	.....	
Central Division of Kánara.									
Grass ... ... Bundles.	180,243	...	563 0 0	134,993	...	420 0 0	.....	143 0 0	
Shigekai ... ... Khandis.	...	1 14 18½	20 0 0	.....	1 16 11½	25 0 0	5 0 0	.....	
Myrabolams ... ... do.	...	...	.....	.....	1 18 27	40 0 0	40 0 0	.....	
Total ...	...	...	583 0 0	.....	...	485 0 0	45 0 0	143 0 0	
Southern Division of Kánara.									
Myrabolams ... ... Khandis.	...	301 14 1	4,945 0 0	.....	433 0 1	8,715 0 0	3,770 0 0	.....	
Shigekai ... ... do.	...	6 19 0	140 0 0	.....	40 7 21	800 0 0	660 0 0	.....	
Total ...	...	...	5,085 0 0	.....	...	9,515 0 0	4,430 0 0	.....	
Belgaum Division.									
Myrabolams ... ... Khandis.	...	30 12 0	405 0 0	.....	140 2 0	2,509 0 0	2,104 0 0	.....	
Dhárwár Division.									
Grass ... ... Bundles.	...	...	.....	143,055	...	175 0 0	175 0 0	.....	
Total, Minor Produce ...	...	...	6,478 0 0	.....	.	13,383 0 0	7,018 0 0	143 0 0	
Grand Total ...	...	..	4,19,307 8 2	.....	...	5,84,843 8 0	1,80,846 7 10	14,810 8 0	

Net difference in favour of the year Rs. 1,65,535-15-10.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

FORM No. 57 A.

Forest Department, Bombay, Southern Circle.

Abstract showing the value of Live and Dead Stock for the year 1891-92.

Description of Dead and Live Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	Number	Value.	Number.	Value.	Number.	Value.	
		Rs.		Rs.		Rs.	
Direction.							
Office tents, old	2	900	1	450	...	450	One was sold for Rs. 90-4-0.
Do.	...	...	1	452	452	...	Newly purchased.
Tools, plant and office furniture ...	...	305	...	339	34	...	
Total ...	...	1,205	...	1,241	486	450	
Northern Division of Kánara.							
Forest bungalow at Haliyál ...	1	2,700	1	2,700	...	...	
Range Forest Office at Haliyál ...	1	900	1	900	...	...	
Forest Nákas	13	10,115	11	3,324	2	6,791	Two of the nákas were transferred to the Salt Department to which they once belonged.
Divisional Forest Office at Haliyál ...	1	350	1	350	...	...	
Forest Bungalow at Kadra ...	1	8,100	1	8,100	...	...	
Kodibág depôt house	1	4,960	1	4,960	...	...	
Hill tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	...	2,932	...	3,082	150	...	
Total ...	...	30,407	...	23,766	150	6,791	
Central Division of Kánara.							
Forest bungalows at Yellápur ...	2	3,050	2	3,050	...	...	
Workshop at Yellápur	1	114	1	114	...	...	
Rest-house at Kolikeri	1	908	1	908	...	...	
Náka houses	14	4,201	17	5,001	800	...	
Old Range Office at Yellápur ...	1	250	1	250	...	...	
Rest-house at Ramanguli ...	1	150	1	150	...	...	
Tent	1	350	1	350	...	...	
Range Forest Office at Ankola ...	1	300	1	300	...	...	
Tools, plant and office furniture ...	...	4,187	...	4,292	105	...	
Buffaloes	...	...	208	6,779	6,779	...	
Carts	...	..	100	3,198	3,198	...	
Total ...	...	13,510	...	24,392	10,882	...	
Southern Division of Kánara.							
Office building at Sirsi	1	1,717	1	1,717	...	...	
Depôt house at Sirsi	1	1,119	1	1,119	...	...	
Forest Nákas	21	6,102	21	6,102	...	...	
Rest-house at Bilki	1	300	1	300	...	...	
Office tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	..	*3,045	...	3,104	59	...	*The difference of Rs. 100 is owing to mistake now rectified.
Total ...	...	12,633	...	12,692	59	...	
Belgaum Division.							
Tent	1	300	1	300	...	...	
Rest-house	1	2,500	1	2,500	...	...	
Nákas	17	7,180	18	7,480	300	...	
Tools, plant and office furniture ...	..	3,374	...	3,942	568	...	
Total ...	...	13,354	...	14,222	868	...	

FORM No. 57 A—*continued.*

Description of Dead and Live Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks
	Number	Value.	Number.	Value.	Number.	Value.	
		Rs.		Rs.		Rs.	
Dhárwár Division.							
Rest-house	1	800	1	800	...	...	
Watch-houses	9	2,700	9	2,700	...	...	
Tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	...	2,901	...	3,023	122	...	
Total ...	...	6,751	...	6,873	122	...	
Bijápur Division.							
Office tent	1	150	1	150	...	...	
Tools, plant and office furniture ...	...	812	...	812	...	...	
Total ...	...	962	...	962	...	...	
Kolába, Ratnágiri Division.							
Hill tents	2	450	2	450	...	...	
Forest boat with fittings ...	1	300	1	300	...	...	
Tools, plant and office furniture ...	...	2,136	...	2,677	544	3	Two of the leather belts with brass buckles were lost.
Bullock	1	30	...	...	...	30	The bullock was sold
Total ...	...	2,916	...	3,427	544	33	
Working Plans Division.							
Tents	2	500	2	500	...	...	
Tools, plant and office furniture ...	...	2,131	...	2,721	590	...	
Total ...	...	2,631	...	3,221	590	...	

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

FORM No. 58.

FORM No. 58.

Forest Department, Bombay, Southern Circle.

Summary of Revenue and Expenditure of the different Divisions during the year 1891-92.

Budget Heads.	Direction.	North Kánara Division.	Central Kánara Division.	South Kánara Division.	Dhárwár Division.	Kolába-Ratnágiri Division.	Bijápur Division.	Belgaum Division.	Total for 1891-92.	Budget Estimate.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.										
I.—Timber and other Produce removed from the Forests by Government Agency—										
a. Timber	.....	2,08,266 4 1	83,298 1 9	14,456 15 1	10,402 5 11	16,753 2 0	.....	21,128 14 11	3,54,305 11 9	7,14,960 0 0
b. Firewood and charcoal	.....	29,240 14 11	385 11 0	589 12 0	10,685 4 0	1,268 5 0	.....	1,98,662 7 10	2,40,832 6 9	3,23,840 0 0
c. Bamboos	.....	.....	10 0 0	.....	.....	.....	.....	19 8 0	29 8 0	.....
d. Sandalwood	.....	706 9 6	2,714 5 0	4,500 8 11	575 9 6	.....	.....	589 2 3	9,086 3 2	5,520 0 0
e. Grass and other minor produce ...	.....	30,501 15 0	4,391 8 11	21,439 9 2	984 8 0	38 13 7	.....	80,672 5 2	1,38,028 11 10	1,11,360 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—										
a. Timber	.....	14,971 15 4	6,957 8 8	17,487 7 7	286 7 0	96,350 11 3	151 5 0	987 9 8	1,37,193 0 6	1,55,010 0 0
b. Firewood and charcoal	.....	17,714 12 8	24,568 5 1	2,451 13 1	789 6 7	22,190 4 0	9,084 0 0	7,713 13 3	84,512 6 8	88,720 0 0
c. Bamboos	.....	26,449 12 0	10,406 13 3	966 6 0	4,820 6 6	0 2 0	5 0 0	5,159 1 9	47,807 9 6	69,150 0 0
d. Grazing and fodder grass	.....	7,376 8 6	7,759 9 6	10,460 12 8	29,222 9 10	2,358 3 6	1,235 0 0	33,074 14 7	91,487 10 7	68,430 0 0
e. Other minor produce	.....	1,638 8 1	5,536 0 0	6,719 8 0	1,661 11 2	1,734 12 9	4,837 12 3	4,855 0 0	26,983 4 3	40,010 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	181 3 2	6,367 2 0	468 2 8	169 13 1	735 2 5	11 10 6	236 5 0	8,169 6 10	1,790 0 0
IV.—Revenue from Forests not managed by Government—										
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....	.....	30 0 0
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	278 11 10	.....	.....	278 11 10	80 0 0
V.—Miscellaneous—										
a. Fines and forfeitures	.....	25 0 0	5 8 0	2 10 1	0 3 9	2,016 7 9	263 14 3	687 8 0	3,001 3 10	1,520 0 0
b. Refunds	5 0 0	294 9 5	14 9 5	4 0 6	13 14 1	221 12 6	.....	65 0 3	618 14 2	50 0 0
c. Other sources	92 4 0	300 4 7	858 1 0	611 13 6	525 14 9	987 3 0	54 10 8	1,937 13 4	5,368 0 10	2,530 0 0
					+1 5 0	+2 8 0			3 13 0	
Total Revenue ..	97 4 0	3,37,668 5 3	1,53,273 3 7	80,159 7 3	60,138 2 2	1,44,933 11 7	15,643 4 8	3,55,789 8 0	11,47,702 14 6	15,83,000 0 0
					+1 5 0	+2 8 0			+3 13 0	

EXPENDITURE.

A.—Conservancy and Works.

I.—Timber and other Produce removed from the Forests by Government Agency—										
a. Timber	.....	1,11,079 7 7	42,134 14 8	1,012 3 6	3,108 14 2	4,135 5 6	.....	3,833 11 9	1,65,304 9 2	2,17,280 0 0
b. Firewood and charcoal	.....	14,892 0 11	613 14 2	456 5 6	2,717 9 6	6 1 6	181 13 6	88,187 6 0	1,07,055 3 1	1,50,730 0 0
c. Bamboos	.....	.....	5 0 0	.....	.....	.....	.....	10 8 0	15 8 0	.....
d. Sandalwood	.....	143 7 10	208 7 0	445 14 2	27 0 11	.....	.....	225 9 11	1,050 7 10	740 0 0
e. Grass and other minor produce ...	.....	9,006 5 8	1,818 15 0	13,641 8 9	648 1 8	15 10 6	.....	15,550 7 5	40,681 1 0	45,300 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ...	...	614 6 6	635 0 6	867 1 0	1,946 0 4	2,183 4 7	.....	1,725 7 10	7,971 4 9	9,500 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	13 9 5	12 4 2	27 10 0	5 0 0	16 13 6	1 11 0	21 14 6	98 14 7	280 0 0
IV.—Revenue from Forests not managed by Government—										
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
V.—Rent of Leased Forests and Payments to Shareholders in Forests managed by Government	.....	.....	.....	.....	.....	5,752 8 1	.....	.....	5,752 8 1	5,000 0 0
VI.—Live Stock, Stores, Tools and Plant—										
a. Purchase of cattle	.....	270 0 0	6,548 5 0	.....	.....	.....	.....	.....	6,818 5 0	8,000 0 0
b. Feed and keep of cattle	.....	53 9 3	4,090 0 9	.....	.....	156 0 0	...	.....	4,299 10 0	7,200 0 0
c. Purchase of stores, tools and plant ...	.....	3,348 8 2	591 1 8	50 11 0	151 15 0	0 7 6	123 10 4	126 3 6	4,392 9 2	5,750 0 0
VII.—Communications and Buildings—										
a. Roads and bridges	.....	542 0 8	660 3 0	6 6 0	.....	29 3 3	.....	1,422 9 6	2,660 6 5	4,620 0 0
b. Buildings	.....	347 8 10	1,713 12 4	74 2 6	229 2 6	101 10 0	.....	523 7 4	2,989 11 6	6,980 0 0
c. Other works	.....	267 5 9	303 0 0	501 11 5	.....	.....	.....	86 6 0	1,158 7 2	1,800 0 0
VIII.—Demarcation, Improvement and Extension of Forests—										
a. Demarcation	.....	.....	5,329 1 4	1,268 12 10	9 0 0	1,115 3 9	378 14 8	2,396 11 8	10,497 12 3	12,040 0 0
b. Compensation for land and rights ..	.....	.....	.....	595 0 0	.....	.....	.....	622 0 0	1,217 0 0	2,500 0 0
c. Surveys and Working Plans	.....	40,019 10 11	.....	.....	16 15 0	11,121 15 8	11 6 0	.....	51,169 15 7	49,700 0 0
d. Sowing and planting	.....	973 2 1	483 15 10	56 12 6	270 2 6	128 1 0	52 0 8	46 13 6	2,011 0 1	4,730 0 0
e. Protection from fire	.....	10,846 3 3	3,459 1 8	72 8 0	558 7 6	118 0 6	266 1 9	1,366 15 0	16,687 5 8	20,770 0 0
f. Other works	.....	.....	...	.....	.....	.....	.....	.....	.....	.....
IX.—Miscellaneous—										
a. Refunds	.....	.....	.....	.....	.....	.....	.....	.....	.....	400 0 0
b. Law charges	.....	.....	.....	176 10 6	.....	.....	.....	.....	176 10 6	150 0 0
c. Other charges	.....	687 1 7	695 14 9	678 8 2	336 12 5	1,317 14 6	345 15 11	1,344 14 1	5,407 1 5	6,215 0 0
Total, A.—Conservancy and Works ...	.....	1,93,104 8 5	69,302 15 10	19,931 13 10	10,025 1 6	26,198 3 10	1,361 9 10	1,17,491 2 0	4,37,415 7 3	5,59,685 0 0

FORM No. 58—*continued.*

Budget Heads.	Direction.	North Kánara Division.	Central Kánara Division.	South Kánara Division.	Dhárwár Division.	Kolába-Ratnágiri Division.	Bijápur Division.	Belgaum Division.	Total for 1891-92.	Budget Estimate.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
B.—ESTABLISHMENTS.										
I.—Salaries—										
a. Conservators	15,020 0 0	.....	.....	.....	.....	.....	.....	.....	15,020 0 0	12,000 0 0
b. Superior officers	.....	23,530 11 11	3,000 0 0	9,174 8 3	10,004 15 2	9,130 11 1	5,652 12 8	10,020 0 0	70,513 11 1	62,700 0 0
c. Subordinate Forest and Depôt establishments	.....	17,663 12 2	11,894 14 2	10,682 15 5	12,613 6 11	32,511 10 5	6,785 11 0	21,551 0 7	1,13,703 6 8	1,09,000 0 0
d. Office establishments	6,028 6 5	3,904 6 0	3,186 10 0	2,303 1 6	1,732 0 9	2,819 7 2	857 0 0	2,313 6 3	23,144 6 1	23,616 0 0
e. Deputation and special allowances ...	406 0 0	100 0 0	.....	.....	.....	159 8 3	.....	.....	665 8 3	.....
II.—Travelling Allowances—										
a. Conservators	2,429 14 8	.....	.....	.....	.....	.....	.....	.....	2,429 14 8	2,400 0 0
b. Superior officers	.....	6,324 1 4	1,269 2 5	1,654 10 8	1,896 12 5	2,088 2 11	1,679 0 6	2,526 6 11	17,438 5 2	16,600 0 0
c. Subordinate Forest and Depôt establishments	.....	1,343 5 10	687 0 2	424 13 8	1,178 6 5	1,996 5 6	240 0 0	1,152 13 11	7,022 13 6	6,600 0 0
d. Office establishments	1,895 10 4	1,417 6 11	769 7 1	719 11 6	512 4 11	805 0 0	319 7 9	691 6 10	7,130 7 4	6,750 0 0
III.—Contingencies—										
a. Stationery	1 5 0	163 15 7	361 11 8	343 4 3	162 13 3	486 8 9	109 15 9	325 12 0	1,955 6 3	1,470 0 0
b. Carriage of tents and records	659 0 1	348 6 5	305 15 0	122 4 0	135 4 6	248 12 9	62 10 0	152 14 9	2,035 3 6	2,160 0 0
c. Rents, rates and taxes	275 0 0	20 5 0	240 0 0	.....	45 0 0	478 5 2	66 0 0	390 0 0	1,514 10 2	1,430 0 0
d. Pay of Police guards	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage	230 13 0	308 11 0	432 15 0	424 3 0	323 2 0	784 9 0	103 0 0	336 9 0	2,943 14 0	2,530 0 0
f. Sundries	891 4 2	166 9 3	204 9 10	266 11 9	164 5 5	171 4 9	54 1 3 25 0 2	354 12 11	2,298 11 6	2,059 0 0
Payments to officers of other provinces ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, B. Establishments ...	27,837 5 8	55,291 11 5	22,352 5 4	26,116 4 0	28,768 7 9	51,680 5 9	15,954 11 1	39,815 3 2	2,67,816 6 2	2,49,315 0 0
GRAND TOTAL OF EXPENDITURE ...	27,837 5 8	2,48,396 3 10	91,655 5 2	46,048 1 10	38,793 9 3	77,878 9 7	17,316 4 11	1,57,306 5 2	7,05,231 13 5	8,09,000 0 0

No. $\frac{F.}{12538}$.

Forwarded to the Conservator of Forests, Southern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office :
Bombay, 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Annual Account Current for the year 1891-92.

	Rs. a. p.	Rs. a. p.
To Opening Balance...	.....	.....
„ VIII. Assessed Taxes—Income Tax—		
Deductions by Government from Salaries and Pensions.	.....	2,562 15 1
„ IX. Forest (as per Summary)	.....	11,47,702 14 6
		+3 13 0
„ XII. Interest—		
Interest on Arrears of Revenue	.....	126 15 9
„ I. Land Revenue—		
Miscellaneous other Items	.....	11 6 0
„ XXIII. Stationery and Printing—		
Stationery Receipts—		
Sale-proceeds of Stationery Boxes	1 5 6	
Other Press Receipts—		
Government Central Press	1 3 6	
		2 9 0
„ Revenue Deposits (Forest)	.....	49,508 13 2
„ Cheques and Bills (Departmental cheques), Forest	.....	6,99,495 1 1
„ Advances Recoverable—		
Forest Advances	4,12,789 4 2	
Ventage Advances	240 0 0	
Objection Book Advances	749 0 0	
		4,13,778 4 2
„ Cash Recoveries	.....	6,737 14 9
„ Forest Remittances—		
Remittances to Treasuries	570 12 10	
Inter-divisional Transfers	51,258 5 0	
Inter-departmental Transfers	1,022 5 7	
		52,851 7 5
„ Bombay Uncovenanted Service Family Pension Fund—		
Widows' Branch	.....	184 11 0
„ Account between India and Bombay—		
III. Items adjustable by India—		
Bengal Military Fund	.....	
Bengal Military Orphan Fund	.....	
Bengal Uncovenanted Service Family Pension Fund	23 10 0	23 10 0
„ Account between Bombay and Public Works Department, Bombay—		
IV. Payments into Treasuries by Civil Officers on account of Public Works Department	.....	507 15 10
Total	.....	23,73,498 6 9

	Rs. a. p.	Rs. a. p.
By 1. Refunds and Drawbacks—Refunds—		
Divided Heads, Forest	.....	1,693 7 0
„ 11. Forest (as per Summary)	.....	7,05,231 13 5
„ 19. Law and Justice—		
Jails, District Jails, Contingencies	.....	
„ Revenue Deposits (Forests)	.....	33,460 7 6
„ Cheques and Bills (Forests Cheque cancelled)	.....	2,379 9 4
„ Advances Recoverable—		
Forest Advances	4,13,986 2 1	
Tentage Advances	.....	
Objection Book Advances	776 0 0	
		4,14,762 2 1
„ Cash Recoveries	.....	6,737 14 9
„ Forest Remittances—		
	+3 13 0	
Remittances to Treasuries	9,61,982 0 2	
Inter-divisional Transfers	16,526 3 5	
Inter-departmental Transfers	196 13 0	
		9,78,705 0 7
„ Accounts Current—		+3 13 0
„ Account between Bombay and Marine—		
IV. Items adjustable by Marine	.....	22,631 7 0
Miscellaneous—		
„ Account between Bombay and Public Works Department, Bombay— (Ordinary Branches)—		
IV. Items adjustable by Public Works Department	.....	3,437 13 0
Inter-departmental Charges—		
„ Account between Bombay and Public Works Department— (Railway Branch)—		
Southern Marátha Railway—		
IV. Items Adjustable by Public Works Department	.....	2,04,454 15 1
Closing Balance	.....	.....
Total	.....	23,73,498 6 9

No. $\frac{F.}{1257}$.

Forwarded to the Conservator of Forests, Southern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office:
Bombay, 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

FORM No. 60—[*Prescribed*].

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Revenue received and Outstandings on account of Revenue during 1891-92.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a p.	Rs. a. p.	
Northern Division of Kánara.	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	1,05,622 3 9	2,04,416 8 10	3,10,038 12 7	2,08,266 4 1	1,01,772 8 6	
	b. Firewood and charcoal	.....	29,244 2 11	29,244 2 11	29,240 14 11	3 4 0	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	706 9 6	706 9 6	706 9 6	.....	
	e. Grass and other minor produce ..	852 13 0	29,707 7 0	30,560 4 0	30,501 15 0	58 5 0	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	2,435 11 4	12,717 9 10	15,153 5 2	14,971 15 4	181 5 10	
	b. Firewood and charcoal... ...	13,084 1 7	8,432 3 2	21,516 4 9	17,714 12 8	3,801 8 1	
	c. Bamboos	.....	26,449 12 0	26,449 12 0	26,449 12 0	.....	
	d. Grazing and fodder grass ...	.....	7,376 8 6	7,376 8 6	7,376 8 6	.....	
	e. Other minor produce	.....	1,955 2 9	1,955 2 9	1,638 8 1	316 10 8	
	III.—Confiscated, Drift and Waif Wood ...	5 12 0	181 3 2	186 15 2	181 3 2	5 12 0	
	Total, Northern Division of Kánara ...	1,22,000 9 8	3,21,187 3 8	4,43,187 13 4	3,37,048 7 3	1,06,139 6 1	
Central Division of Kánara.	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	45,932 12 10	64,532 10 4	1,10,465 7 2	83,298 1 9 592 5 6*	26,574 15 11	
	b. Firewood and charcoal	42 5 0	356 15 6	399 4 6	385 11 0	13 9 6	
	c. Bamboos	.....	10 0 0	10 0 0	10 0 0	.....	
	d. Sandalwood...	38 4 0	2,723 13 0	2,762 1 0	2,714 5 0 38 4 0*	9 8 0	
	e. Grass and other minor produce ...	31 8 1	4,362 13 6	4,394 5 7	4,391 8 11 1 12 11*	0 15 9	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	1,425 1 5	8,155 7 8	9,580 9 1	6,957 8 8	2,623 0 5	
	b. Firewood and charcoal	12,171 15 10	28,409 0 1	40,580 15 11	24,568 5 1	16,012 10 10	
	c. Bamboos	.....	10,409 13 3	10,406 13 3	10,409 13 3	3 0 0	
	d. Grazing and fodder grass ...	.....	7,759 9 6	7,759 9 6	7,759 9 6	.....	
	e. Other minor produce	395 11 0	5,620 9 0	6,016 4 0	5,536 0 0	480 4 0	

	III.—Confiscated, Drift and Waif Wood ...	.....	6,626 3 1	6,626 3 1	6,367 2 0	259 1 1
	Total, Central Division of Kánara ...	60,037 10 2	1,38,966 14 11	1,99,004 9 1	1,52,395 1 2 632 6 5*	45,977 1 6
Southern Division of Kánara.	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	7,578 9 0	12,364 2 1	19,942 11 1	14,456 15 1	5,485 12 0
	b. Firewood and charcoal	.....	589 12 0	589 12 0	589 12 0	.....
	c. Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood	.....	4,500 8 11	4,500 8 11	4,500 8 11	.....
	e. Grass and other minor produce ...	.....	21,439 9 2	21,439 9 2	21,439 9 2	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	728 10 3	18,223 9 4	18,223 9 4	17,487 7 7	736 1 9
	b. Firewood and charcoal	.....	2,451 13 1	2,451 13 1	2,451 13 1	.....
	c. Bamboos	.....	966 6 0	966 6 0	966 6 0	.....
	d. Grazing and fodder grass ...	.....	10,460 12 8	10,460 12 8	10,460 12 8	.....
	e. Other minor produce	1 11 0	6,877 3 0	6,878 14 0	6,719 8 0	159 6 0
	III.—Confiscated, Drift and Waif Wood ...	.....	468 2 8	468 2 8	468 2 8	.....
	Total, Southern Division of Kánara ...	8,308 14 3	77,613 4 8	85,922 2 11	79,540 15 2	6,381 3 9
Belgaum Division ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	3,746 1 0	18,319 12 9	22,065 13 9	21,128 14 11	936 14 10
	b. Firewood and charcoal	.....	1,98,662 7 10	1,98,662 7 10	1,98,662 7 10	.....
	c. Bamboos	.....	19 8 0	19 8 0	19 8 0	.....
	d. Sandalwood	.....	589 2 3	589 2 3	589 2 3	.....
	e. Grass and other minor produce ...	.....	80,672 5 2	80,672 5 2	80,672 5 2	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	.....	987 9 8	987 9 8	987 9 8	.....
	b. Firewood and charcoal	.....	7,713 13 3	7,713 13 3	7,713 13 3	.....
	c. Bamboos	.....	5,159 1 9	5,159 1 9	5,159 1 9	.....
	d. Grazing and fodder grass ...	.....	33,074 14 7	33,074 14 7	33,074 14 7	.....
	e. Other minor produce	.....	4,855 0 0	4,855 0 0	4,855 0 0	.....
	III.—Confiscated, Drift and Waif Wood ...	.....	236 5 0	236 5 0	236 5 0	.....
	Total, Belgaum Division ...	3,746 1 0	3,50,290 0 3	3,54,036 1 3	3,53,099 2 5	936 14 10

* Written off from the accounts under Government orders.

FORM No. 60—*continued.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Dhárwár Division ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	1,318 0 0	11,866 5 11	13,184 5 11	10,402 5 11	2,782 0 0	
	b. Firewood and charcoal	.....	10,711 8 0	10,711 8 0	10,685 4 0	26 4 0	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	17 1 0	558 8 6	575 9 6	575 9 6	.....	
	e. Grass and other minor produce ...	.....	1,009 8 0	1,009 8 0	984 8 0	25 0 0	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	3 12 0	282 11 0	286 7 0	286 7 0	.....	
	b. Firewood and charcoal	.....	789 6 7	789 6 7	789 6 7	.....	
	c. Bamboos	.....	4,820 6 6	4,820 6 6	4,820 6 6	.....	
	d. Grazing and fodder grass ...	.....	29,222 9 10	29,222 9 10	29,222 9 10	.....	
	e. Other minor produce	.....	1,661 11 2	1,661 11 2	1,661 11 2	.....	
	III.—Confiscated, Drift and Waif Wood ...	.....	169 13 1	169 13 1	169 13 1	.....	
	Total, Dhárwár Division ...	1,338 13 0	61,092 8 7	62,431 5 7	59,598 1 7	2,833 4 0	
Bijápur Division ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	.....	.....	.....	.....	
	b. Firewood and charcoal	.....	.....	.....	.....	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	151 5 0	151 5 0	151 5 0	.....	
	b. Firewood and charcoal	.....	9,084 0 0	9,084 0 0	9,084 0 0	.....	
	c. Bamboos	.....	5 0 0	5 0 0	5 0 0	.....	
	d. Grazing and fodder grass ...	.....	1,235 0 0	1,235 0 0	1,235 0 0	.....	
	e. Other minor produce	.....	4,837 12 3	4,837 12 3	4,837 12 3	.....	
	III.—Confiscated, Drift and Waif Wood ...	.....	11 10 6	11 10 6	11 10 6	.....	
	Total, Bijápur Division ...	.....	15,324 11 9	15,324 11 9	15,324 11 9	.....	

Kolába-Ratnágiri Division.	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	.....	16,753 2 0	16,753 2 0	16,753 2 0	.....
	b. Firewood and charcoal	.....	1,268 5 0	1,268 5 0	1,268 5 0	.....
	c. Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood	.....	.....	.....	.....	.....
	e. Grass and other minor produce ...	.....	38 13 7	38 13 7	38 13 7	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	2,752 5 10	98,188 5 5	1,00,940 11 3	96,350 11 3	4,590 0 0
	b. Firewood and charcoal	.....	25,127 12 0	25,127 12 0	22,190 4 0	2,937 8 0
	c. Bamboos	.....	0 2 0	0 2 0	0 2 0	.....
	d. Grazing and fodder grass ...	.....	2,394 7 6	2,394 7 6	2,358 3 6	36 4 0
	e. Other minor produce	.....	1,734 12 9	1,734 12 9	1,734 12 9	.....
	III.—Confiscated, Drift and Waif Wood ...	.....	1,110 2 5	1,110 2 5	735 2 5	375 0 0
	Total, Kolába-Ratnágiri Division ...	2,752 5 10	1,46,615 14 8	1,49,368 4 6	1,41,429 8 6	7,938 12 0
Total of the Circle.	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	1,64,197 10 7	3,28,252 9 11	4,92,450 4 6	3,54,305 11 9 592 5 6*	1,37,552 3 3
	b. Firewood and charcoal	42 5 0	2,40,833 3 3	2,40,875 8 3	2,40,832 6 9	43 1 6
	c. Bamboos	.....	29 8 0	29 8 0	29 8 0	.....
	d. Sandalwood	55 5 0	9,078 10 2	9,133 15 2	9,086 3 2 38 4 0*	9 8 0
	e. Grass and other minor produce ...	884 5 1	1,37,230 8 5	1,38,114 13 6	1,38,028 11 10 1 12 11*	84 4 9
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	7,345 8 10	1,37,977 15 8	1,45,323 8 6	1,37,193 0 6	8,130 8 0
	b. Firewood and charcoal	25,256 1 5	82,008 0 2	1,07,264 1 7	84,512 6 8	22,751 10 11
	c. Bamboos	.....	47,810 9 6	47,810 9 6	47,807 9 6	3 0 0
	d. Grazing and fodder grass ...	.....	91,523 14 7	91,523 14 7	91,487 10 7	36 4 0
	e. Other minor produce	397 6 0	27,542 2 11	27,939 8 11	26,983 4 3	956 4 8
	III.—Confiscated, Drift and Waif Wood ...	5 12 0	8,803 7 11	8,809 3 11	8,169 6 10	639 13 1
	GRAND TOTAL ...	1,98,184 5 11	11,11,090 10 6	13,09,275 0 5	11,38,435 15 10 632 6 5*	1,70,206 10 2

* Written off from the accounts under Government orders.

NOTE.—The revenue under budget heads IV and V is Rs. 278-11-10 and Rs. 8,991-15-10 respectively. This has not been shown in this statement in detail as there are no outstandings against those heads. The total revenue realized during the year is Rs. 11,47,702-14-6 (*vide* form No. 58).

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

FORM No. 61.

Forest Department, Bombay, Southern Circle.

Outstandings and Liabilities on account of Contractors and Disbursers for the year 1891-92.

Division.	Department Debtor.			Department Creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in Cash and Value of supplies and work done during year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
Contractors.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
North Kánara ...	.....	71,572 10 11	71,572 10 11	.....	72,800 0 0	72,800 0 0	1,227 5 1	...	
Central Kánara ...	.....	10,995 3 11	10,995 3 11	8,946 14 10	7,692 0 0	16,638 14 10	5,643 10 11	...	
Dhárwár	.....	1,050 7 8	1,050 7 8	.....	1,750 0 0	1,750 0 0	699 8 4	...	
Kolába-Ratnágiri ...	.....	.....	.....	.....	100 0 0	100 0 0	100 0 0	...	
Belgaum	.....	36,093 14 2	36,093 14 2	100 2 2	36,075 1 7	36,175 3 9	81 5 7	...	
Total, Contractors ...	.....	1,19,712 4 8	1,19,712 4 8	9,047 1 0	1,18,417 1 7	1,27,464 2 7	7,751 13 11	...	
Disbursers.									
North Kánara ...	.....	93,838 4 8	93,838 4 8	.....	94,055 14 10	94,055 14 10	217 10 2	...	
South Kánara ...	.....	32,502 13 8	32,502 13 8	2,321 5 1	33,988 0 0	36,309 5 1	3,806 7 5	...	
Central Kánara ...	.....	36,557 6 11	36,557 6 11	1,417 13 7	36,639 2 10	38,057 0 5	1,499 9 6	...	
Dhárwár	.....	19,941 0 0	19,941 0 0	.....	19,941 0 0	19,941 0 0	.....	...	
Kolába-Ratnágiri ...	.....	42,292 7 6	42,292 7 6	439 15 0	42,543 13 7	42,983 12 7	691 5 1	...	
Belgaum	.....	60,481 14 9	60,481 14 9	971 13 6	60,938 1 3	61,909 14 9	1,428 0 0	...	
Bijápur	0 8 0	7,463 0 0	7,463 8 0	.....	7,463 0 0	7,463 0 0	.....	0 8 0	
Total, Disbursers ...	0 8 0	2,93,076 15 6	2,93,077 7 6	5,150 15 2	2,95,569 0 6	3,00,719 15 8	7,643 0 2	0 8 0	
Grand Total ...	0 8 0	4,12,789 4 2	4,12,789 12 2	14,198 0 2	4,13,986 2 1	4,28,184 2 3	15,394 14 1	0 8 0	

No. $\frac{F.}{12539.}$

Forwarded to the Conservator of Forests, Southern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office :
Bombay, 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

ANNUAL FORM No. 62.

Forest Department, Bombay, Southern Circle.

Financial results of the year 1891-92.

Division.	Timber and other produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	
Direction	...	...	97	27,837	...	97	27,837	
Northern Division of Kánara.	2,68,896	1,67,492	68,772	6,509	74,395	3,37,668	2,48,396	
Central do.	97,167	62,477	56,106	7,811	21,367	1,53,273	91,655	
Southern do. ...	41,143	22,307	39,016	14,831	8,910	80,159	46,048	
Belgaum Division ...	3,01,073	1,28,455	54,717	13,724	15,127	3,55,790	1,57,306	
Dhárwár do. ...	22,647	25,682	37,492	8,343	4,769	60,139	38,794	
Bijápur do. ...	...	184	15,643	3,989	13,143	15,643	17,316	
Kolába-Ratnágiri Division.	18,795	22,986	1,26,141	16,569	38,324	1,44,936	77,879	
Total ...	7,49,721	4,29,583	3,97,984	99,613	1,76,035	11,47,705	7,05,231	

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

No. 116 of 1893.

REVENUE DEPARTMENT.

Belgaum, 9th January 1893.

Forwarded to Government.

2. By Government Resolution No. 8102 of 15th November 1890, the date fixed for the submission of the report to the Commissioner is the 31st October, but the report only reached this office on the 23rd ultimo, when Mr. Charles was in charge, and it was handed over to the undersigned for review, when the latter assumed charge on the afternoon of the 31st. No avoidable delay in submitting the report has thus occurred on the part of the undersigned.

Forest area, paras. 14 to 27.

3. The only districts in which any changes in the forest area were effected during the year under report are Kánara and Kolába. In the former Collectorate about 14 square miles of forest were transferred from "Protected" to "Reserved", the total area remaining unaffected. In Kolába the changes were due to the transfer of the Karjat and Khálápur ranges from the Northern to the Southern Circle which resulted in an addition of 81 square miles and 342 acres to the latter Circle. The total forest area of the whole Circle, on the 1st April 1892, exceeded that on the corresponding date of the preceding year by 81 square miles, 277$\frac{3}{20}$ acres.

Forest demarcation and settlement, paras. 28 to 37.

4. Two Forest Settlement Officers were working during the year, one in Kánara and the other in the Belgaum and Dhárwár Collectorates. The subjoined table compares the results of the present and previous years, together with the cost incurred:—

Year.	Area in square miles finally settled and sanctioned.	Cost.	Area for which the field work has been completed, but of which the settlement is still unfinished.	Cost.	Cost per square mile of the settlement finally effected.
		Rs.		Rs.	
1890-91	296·68	6,721	721·79	14,087	22:65
1891-92	26·287	3,750	134·10	19,010	141·7

It may be noticed that while the cost of settlement operations in both the years is nearly the same, the outturn of the year under report was far less than that of 1890-91. If this is due, as seems probable, to the circumstance that the time and attention of Mr. Knight, the Dhárwár Forest Settlement Officer, had to be entirely devoted to revenue and magisterial duties, it is not understood why his salary and allowances should be debited to "Forest".

5. The cost per square mile, during the year under report, was Rs. 141·7, against Rs. 22·65 in the preceding year. Some explanation should have been furnished concerning this extraordinary increase. It may also be pointed out that, whilst the aggregate cost of the settlement and demarcation during 1891-92 is given in paragraph 28 as being Rs. 26,400, the average cost per square mile, mentioned in paragraph 31, is calculated on Rs. 22,760, and no explanation is furnished of the items which have been omitted.

Forest settlement work remaining to be done.

6. The aggregate forest area of 3,093 square miles and 386 acres, given in paragraph 34 as remaining to be dealt with, is, except for Kánara, precisely the same as that stated in paragraph 14 of the report for 1890-91. In Kánara only 26 square miles and 296 acres were settled during the year, and the amount of work which still remains to be accomplished is very large. The Commissioner can add nothing now to the remarks made by him in 1891 in his reports to Government, in which he strongly urged on the consideration of His Excellency the Governor in Council the urgent need, which, in his opinion, existed for the immediate acceleration and

speedy completion of the work of forest settlement in Kánara, and the necessity for the employment of a second full-time Forest Settlement Officer. The work is dragging on very slowly. It will apparently take years, at the present rate of progress, to complete it. In the meantime the interests of the State suffer severely; the forests are in parts being utterly destroyed, the officers of the Forest Department are helpless to prevent infinite injury being done, and the cultivators are being confirmed in their belief, which the Commissioner holds will ultimately be shown to be unfounded, that they have free rights to cut, lop and maim the tree-growths within forest limits.

Chapter II.

Para. 38, Surveys.

7. The topographical survey was continued during the year, and the outturn and its cost are shown in the margin. Here again the cost per square mile was very materially heavier than in 1890-91, but no explanation of this fact is forthcoming in the report.

Year.	Area surveyed during the year.	Total Cost.	Cost per square mile for the 8" scale.
		Rs.	Rs. a. p.
1890-91	343	38,971	83 8 4
1891-92	300	35,138	112 0 0

In paragraph 19 of the report for 1890-91, it was stated that, by the end of the season of 1891-92, the survey work would be completed and the services of the party might be dispensed with. The report under review gives no idea as to how much still remains to be done.

Working plans.

8. It is only in the district of Kánara that some progress has been made in the preparation of working plans. Such plans for 69 square miles have, it is stated, been submitted to Government, and the necessary materials for an additional area of 116 square miles have been got ready. It seems necessary to impress on the Conservator that he should take care, in future, that the parties employed are enabled to carry on work during the entire open season. The requisite number of coolies should have been obtained beforehand, and if one Divisional Officer could only keep pace with the work of a single party, the expediency of the employment of two parties appears open to doubt. It is, however, satisfactory that notwithstanding the difficulties experienced, the cost per acre during the year was only annas 10·6, against annas 12·29 in 1890-91.

9. As desired in paragraph 6 of Government Resolution No. 10056, dated the 22nd ultimo, reports have been called for from the several districts regarding the steps taken for the preparation of working plans.

Chapter III.

Protection and improvement.

10. The only change worthy of notice in connection with the Forest Department establishment is the addition in Kolába of 2 foresters and 60 guards, at an aggregate monthly cost of Rs. 533.

Breaches of the law.

11. These fall under three heads :—

(1) Prosecutions for offences;

(2) Cases dealt with under Section 67 of the Forest Act;

(3) Cases of cattle trespass on Government forests.

Prosecutions instituted, paras. 54 to 63.

12. The number of prosecutions rose from 194 to 346 or by 78 per cent. The subjoined table gives the nature of the offences committed :—

Forest Division and Civil District.		Cases pending from previous year.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Northern Division of Kánara.	1890-91 ..	..	3	13	1	..	17	17	14	20	3	3	17	23	..
	1891-92 ..	..	3	15	..	3	21	21	10	20	11	11	21	40	..
Central Division of Kánara.	1890-91 ..	1	3	3	..	2	8	9	8	15	1	3	9	18	..
	1891-92 ..	..	3	17	..	..	20	20	16	19	4	4	20	23	..
Southern Division of Kánara.	1890-91 ..	..	..	18	..	..	18	18	7	13	10	30	17	43	1
	1891-92 ..	1	..	103	..	..	103	104	5	6	2	12	7	18	97
Belgaum Division ..	1890-91 ..	9	4	34	3	8	49	58	31	75	21	57	52	132	4
	1891-92 ..	4	1	23	11	1	36	40	27	60	12	31	39	91	1
Dhárwár Division ..	1890-91 ..	..	1	14	..	..	15	15	12	35	3	3	15	38	..
	1891-92 ..	..	..	7	.	..	7	7	6	11	1	1	7	12	..
Bijápur Division ..	1890-91 ..	..	..	9	2	..	11	11	7	15	3	10	10	25	1
	1891-92 ..	1	..	6	2	..	8	9	8	34	..	..	8	34	1
Ratnágiri and Kolába Division.	1890-91 ..	1	1	37	5	33	76	77	67	145	10	63	77	208	..
	1891-92 ..	5	..	142	2	7	151	156	124	396	26	96	150	492	6
Total .	1890-91 ..	11	12	128	11	43	194	205	146	318	51	169	197	487	6
	1891-92 ..	11	7	313	15	11	346	357	196	555	56	155	252	710	105

13. It will be seen from the above that the increase has chiefly occurred in—

(1) the Southern Division of Kánara; and

(2) the Ratnágiri and Kolába Division, and under the following heads :—

(1) illicit cutting of reserved kinds of trees for ráb;

(2) illicit cultivation of dháli;

(3) pollarding of reserved kinds of trees for soppu.

Under the last head no less than 97 cases were pending on the date of the report in Siddápur, Sirsi, &c. No particulars are supplied as to the gravity of the offences committed and whether they were committed in settled or unsettled forests, but presumably most of the cases occurred in the latter class of forests. In both Siddápur and Sirsi garden cultivation is extensive, and the cultivators habitually encroach on the adjoining Government forest, in a few instances because no betta lands have been assigned, but in most cases because either the existing assignments are alleged to be inadequate, or because by improvident husbandry and through lack of care and foresight the ráb supplies those assignments could yield have become exhausted. In paragraph 60, Mr. Wroughton refers to certain correspondence. Of the three* courses open for the protection of unsettled forests, Government have apparently elected to adopt the first. If so, the appointment of a second Forest Settlement Officer, and the hastening on of the work, seem to the undersigned to be imperatively called for. Kánara is by far the most important Forest District, not only in the Southern Circle, but in the entire Presidency. It contains the largest and much the most valuable forests, and those forests, if duly protected and preserved, will, in years to come, prove far more profitable to the State than they even now are. The Commissioner would, therefore, venture to recommend most strongly that if no Covenanted Assistant can at present be made available for employment as a

*(1). To wait until the settlement is completed (paragraph 10 of the opinion of the Remembrancer of Legal Affairs).

(2). To prevent through the Forest Officers the exercise by the rayats of their claims which they set up, and so compel them to sue Government in order to establish their claim (paragraph 8).

(3). To take the initiative and sue for a decree to have their own proprietary rights declared, and to prevent the rayats from encroaching on or deriving any benefit from the protected forests, except to such extent as may, from time to time, be expressly permitted by Government.

second Forest Settlement Officer, a selected Deputy Collector, possessing the required experience of forest settlement, should be deputed to Kánara in that capacity.

As regards the increase of offences under the other two heads no causes have been assigned, but it was possibly due to increased activity on the part of Forest Officers. That they did not take action on insufficient grounds or through unrestrained departmental zeal is established by the fact that in nearly 80 per cent. of the cases where prosecutions were instituted convictions were obtained; and this must be regarded as constituting a very high proportion.

14. The following table compares the results of the magisterial trials in cases criminally prosecuted during 1890-91 and 1891-92 :—

No.	Divisions.	1890-91.			1891-92.			Percentage of Failures.	
		Cases in which conviction was obtained.	Cases in which conviction failed.	Total.	Cases in which conviction was obtained.	Cases in which conviction failed.	Total.	1890-91.	1891-92.
1	Northern Division, Kánara...	14	3	17	10	11	21	18	52
2	Central do. ...	8	1	9	16	4	20	11	20
3	Southern do. ...	7	10	17	5	2	7	59	28
4	Belgaum Division	31	21	52	27	12	39	40	31
5	Dhárwár do. ...	12	3	15	6	1	7	20	14
6	Bijápur do. ...	7	3	10	8	...	8	30	...
7	Kolába do. ...	44	6	50	103	19	122	12	16
8	Ratnágiri do. ...	23	4	27	21	7	28	15	25
	Total...	146	51	197	196	56	252	26	22

In the Northern Division of Kánara the percentage of failures was the largest in the Circle, amounting to 52 per cent. as against 18 in 1890-91. In paragraph 62, this result is attributed to the taking into Court of a number of cases of theft of wood in Reserved Forests, in which the offenders refused to pay compensation under Section 67of the Forest Act. This would seem to indicate a certain lack of discretion on the part of the Forest Officers concerned, but as Government have now issued very clear instructions on the subject and have reminded the Collectors of their responsibilities in the matter, such cases are likely to be very few in the future, and further comment on action taken before the issue of those orders is hardly needed. The percentage of failures has also risen in the Central Division of Kánara, in Kolába and in Ratnágiri, but in all the other forest divisions it has decreased, notably in the Southern Division of Kánara.

Cases dealt with under Section 67.

15. In all 804 cases were dealt with under Section 67, as compared with 1,052 in 1890-91. The table at paragraph 64 must be taken along with the Statement 50 B, appearing at page 27. The percentage of cases discharged to cases proved is exceptionally small. That only 4 out of 1,052 in 1890-91 and 1 out of 804 in 1891-92 should have been discharged indicates that either the detective ability of Forest Officers is far above the average, or, as is more probable, that villagers caught *in flagrante delicto* or with overwhelming evidence forthcoming against them prefer,

and not unnaturally, to be dealt with summarily and to pay in the form of compensation a fine of light amount rather than to be put to the trouble and ignominy of being criminally prosecuted before a Magistrate. More than 50 per cent. of the cases compounded fell under the lowest class, *i.e.*, cases in which a fine of a rupee or less was inflicted. It is only when the limit of Rs. 16 is reached that the number of cases compounded becomes very small. The figures for but one year are supplied, and no general conclusion can be drawn; but it seems expedient that in future an addition should be made to Form 50 B, showing in what column the accused who challenged prosecution would have appeared had their cases been compounded.

The fact that there was no appeal to the Conservator of Forests may be deemed a proof that the decisions of the local Forest Officers were acquiesced in. The recent orders of Government provide for examination by Collectors of the Forest Officers' proceedings. In future, therefore, the action of the Forest Officers will necessarily receive greater attention from the Revenue Officers.

Para. 63.

16. As regards the nature of the offences most prevalent in each forest division, Form No. 50 A, which gives the figures for two years, shows that thefts of timber preponderate in Kolába and Ratnágiri, of firewood in Belgaum, and of ráb materials in Kánara and Ratnágiri. The proportion of offences in respect of minor produce to those in regard to timber and firewood is about 1 to 3. On the whole, the Commissioner sees no reason to criticise unfavourably the action taken by the Forest Department in enforcing the Forest Act for the protection of forest property.

3rd head, cattle impounded.

17. The number of animals impounded during the year was 8,726 against 10,306 in the preceding year, the decrease occurring under the head of "closed" forest.

Para. 77, fire protection.

18. The subjoined table shows the results of the measures especially adopted for the protection of forests from fire:—

Year.	Area in Square Miles.			Proportion of failure to area attempted.	Cost.		Protection of area under fire protection to total area of Reserves.
	Attempted.	Failures.	Protected.		Per square mile protected.	Per acre protected.	
1891-92	1,046	25	1,021	2·39	16·14	4·8	53·2
1890-91	1,059	9	1,050	0·8	14·07	4·2	56·
Increase or decrease in 1891-92.	-13	+16	- 29	+1·59	+2·07	+·6	-2·8

There is a small increase in the cost per mile, but part of it is due to the fact that a sum of Rs. 1,056 on account of the operations of 1890-91 was paid during the year under review, and therefore included in the total on which the average is calculated.

The area attempted during the year was almost the same as in 1890-91, but the failures increased from 9 in 1890-91 to 25 in 1891-92. The largest number of fires occurred in the Southern Division of Kánara, some being accidental, whilst others were wilfully caused by persons in order to obtain an early crop of grass. The area, which escaped fire, though no special measures were adopted for its protection, was 3,982 square miles or 74 per cent. of the total forest area, as compared with 4,094 square miles or 79 per cent. in 1890-91. The acreage injured by fire has consequently somewhat increased, but considering that a very large proportion of it was in Kánara, where forest conservancy is more stringent than elsewhere and where the Government forests are interlaced with private holdings, the comparatively small number of fires and amount of harm done points

to the absence of any malevolent hostility towards the Forest Department on the part of the villagers generally.

Grazing.

19. Two sets of rules for the regulation of grazing obtain in the Southern Circle. One applies exclusively to Kánara and the other to the remaining five districts. In three of the latter the operation of the rules had to be suspended, owing to the prevailing scarcity of fodder, and the forests of Kánara were also thrown open to grazing.

20. During the recent scarcity the dearth of fodder was very serious. Whilst grain poured in from all sides by the various railway communications no fodder was introduced from outside tracts. Its importation would have been too costly, and the experiment of 1876-77 had conclusively shown that grass from the Konkan found no demand above the ghát. The forests of all the above-ghát districts were therefore thrown open, but failed to afford adequate relief, being themselves frequently as arid and grassless as the waste and arable land beyond their limits. The Collector of Kánara was, therefore, ordered to admit outside cattle, *i.e.*, such as were *bonâ fide* driven into Kánara from Belgaum, Dhárwár and Bijápur in search of food and water. No complaints were heard of cattle thus taking refuge in Kánara dying from want of nutriment, and this speaks favourably for the reserve fodder resources of the Kánara forests in years of drought.

Chapter IV.

21. The subjoined table, extracted from Form No. 54, compares the outturn of timber and fuel during the years 1891-92 and 1890-91 :—

Description of Timber.	Year.	Quantity.
I. Timber in the rough logs. ...	1891-92 ...	Cubic Feet 309,974
	1890-91 ...	" 444,373
II. Timber in the rough poles. ...	1891-92 ...	" 891,643
	1890-91 ...	" 958,934
III. Sawn or square timber. ...	1891-92 ...	" 314,093
	1890-91 ...	" 285,062
IV. Miscellaneous.	1891-92 ...	" 161,340
	1890-91 ...	" 17,097
V. Fuel.	1891-92 ...	" 6,243,815
	1890-91 ...	" 5,186,919
VI. Sandalwood....	1891-92 ...	Khandis 55-14-17½
	1890-91 ...	" 61- 1-10
VII. Do.	1891-92 ...	Pieces 964
	1890-91 ...	" . "
VIII. Do.	1891-92 ...	Trees 189
	1890-91 ...	" "
IX. Bamboos.	1891-92 ...	No. 4,031,476
	1890-91 ...	" 4,483,824

The total outturn of forest produce exploited during the year was less than in the previous year, except under the unimportant heads Nos. III, IV, and V. It appears, however, from the summary given by the Conservator, that the yield of large teak shows an increase in the Central Division of Kánara and in the Districts of Kolába and Ratnágiri, although in the other forest divisions it fell far short of the results obtained in 1890-91. The decrease was most marked in the Northern Division of Kánara, where the quantity of timber sold was over a third less than the amount which found purchasers in 1890-91, and this falling off was accompanied by a reduction of over 15 per cent. in the price realised per

100 cubic feet. This result is to be regretted, but the reasons assigned by the Conservator in paragraphs 166 and 167 satisfactorily explain how it was produced.

Chapter V.

22. The diminution of the net forest revenue of the Circle during the year amounted to Rs. 2,02,395 as shown in the marginal table. The decrease was mainly due to the limited demand, owing to special causes, for timber and to lessened consumption of wood fuel for locomotive purposes on the railway. With regard, however, to the latter item the Commissioner noticed, when travelling to Belgaum a few days ago, that the engines on the Southern Marátha Railway are now burning wood the whole length of the line from Poona to Belgaum. Formerly coal was consumed on most if not all that length. If, therefore, wood has now supplanted coal on that section, an increased demand for wood fuel may be anticipated with proportionately enlarged receipts. The expenditure for the year was practically identical with that reported for 1890-91. No special comments regarding it seem required.

Year.	Revenue.	Expenditure	Surplus or net Revenue.
	Rs	Rs.	Rs.
1890-91	13,49,826	7,04,955	6,44,871
1891-92	11,47,707	7,05,231	4,42,476

Chapter VI.

General remarks.

23. The other heads of the report call for no remark. The report has been carefully compiled by Mr. Wroughton, who joined only after the close of the year to which it relates. Mr. MacGregor's administration of the Circle was careful and judicious, characterised alike by an absence of excess of zeal, by a thorough knowledge of the Circle and its forests and Forest Officers, by the enforcement of good discipline, and by the maintenance of friendly relations with the Revenue Department officials.

J. NUGENT,
Commissioner, S. D.

SIND CIRCLE.

No. 1,668 OF 1892-93.

From

THE DEPUTY CONSERVATOR OF FORESTS,
SIND CIRCLE,

To

THE SECRETARY TO GOVERNMENT,
REVENUE DEPARTMENT,
BOMBAY.

Deputy Conservator's Office,
Hyderabad, 30th September, 1892.

Sir,

I have the honour to submit herewith the Annual Administration Report of the Sind Forest Circle for the year 1891-92, with its subsidiary Statements.

I have the honour to be,

Sir,

Your most obedient Servant,

W. S. HEXTON,
Deputy Conservator of Forests,
Sind Circle.

Submitted through the Commissioner in Sind.

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ANNUAL ADMINISTRATION REPORT OF THE SIND FOREST CIRCLE FOR THE YEAR 1891-92.

CHAPTER I.

Area and Boundaries.

Original forest area not sufficient to meet increased demands.

1. The forest area at the annexation was computed to be about 1,30,000 acres. This area was then amply sufficient to meet the requirements of the Province. But great and important changes have taken place since the annexation, and with them greater demands for fuel. On the establishment of the Indus Flotilla, further additions to the forests were made; and large areas were again added to meet the demands made upon the forests for the working of ferries, water-works, and the North-Western Railway. Notwithstanding these additions, the really productive area has been, and is, of fluctuating extent. The river in many places has changed its course; it no longer flows where it once did; and large areas, once annually watered, are now left high and dry, and may be considered incapable of reproduction. Whole forests have been lost owing to erosion; and, as will be seen from the sketch map forwarded, the bunds have cut off the water-supply from over two lakhs of acres, thus rendering reproduction very doubtful.

Indiscriminate cutting has rendered systematic working necessary

When the yield of the forests was in excess of the demand, no very great anxiety as to the future appears to have seized upon the minds of some of my predecessors, and there was no apparent need of the systematic working of the whole forest area. When large additions were made, it was imagined that the supply would still be adequate, and the contractors, eager for profit, cut over the areas most convenient to themselves, without any thought or care for reproduction. The result is seen in the over-worked state of many of the riverain forests. But the demands of the Province have so increased and the growth has been so thinned that, without thorough systematic working, the fuel-supply cannot be maintained. I have, therefore, insisted on rotation cuttings throughout the whole of the Divisions, but I find the annual yield to be about one-half of the demand. The forest yield has, therefore, been supplemented by cuttings from the Revenue jungles; but even those will soon begin to show signs of exhaustion, and the supply under existing circumstances will eventually fail.

Forest boundaries too near to villages.

Many of the forest boundaries are advanced much too near to some of the villages. This is not only a source of danger to the forests, but, as was observed by the Commissioner during his recent tour, little room is left for the expansion of cultivated areas. Wherever possible, the unwatered areas in the neighbourhood of villages might be disforested, and, as was pointed out in the Commissioner's letter alluded to hereafter, their places supplied by lands along the river. Some steps have already been taken in this matter. I have selected 24,000 acres in Upper Sind, and proposals have also been submitted to the Collectors of Karachi and Hyderabad for the acquisition of an additional 36,000 acres suitable for forest purposes, and I am quite prepared, should applicants for the land be found, to begin the disforestment of those areas incapable of reproduction.

The productive part of forest areas not sufficient to meet existing demand.

The area of the Sind forests at the beginning of the year was about 6,16,263 acres. Of this, I consider 2,14,772 acres incapable of reproduction owing to a deficient water-supply; and of the remaining 4,01,491 acres, about 3,10,260 acres only can be considered as really productive. I am of opinion that the present area, that is, 6,16,263 acres, is quite sufficient to meet existing demands, if it were all suited so as to be productive, and if it were in systematic working order. But it is not, and I have already informed the Commissioner that, in addition to that already selected, about 1,50,000 acres are necessary in order to place the fuel-supply of the Province beyond the possibility of doubt.

I think the time has now arrived when the appointment of a Special Settlement Officer for Sind would be of considerable benefit. He could give without delay the land so urgently needed for forest purposes, and he might, where necessary, revise those forest boundaries which prevent the expansion of cultivated areas.

Forest Settlement Officer urgently required.

2. The subjoined table gives the areas of the forests of the Sind Circle as they appeared on the records of the Conservator's Office on the 31st March, 1892. It shows the additions made by the Divisional Forest Officers on account of new areas acquired by Forest Settlement, together with the deduction caused by disforestment:—

Present area

Divisions.	Area as it stood on 31st March, 1891.				Area added during the year.				Area excluded during the year.				Area as it stood on 31st March, 1892.			
	Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.	
	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Suare miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.
Sukkur	446	79	1	128	...	..	..	..	...	...	...	...	446	79	1	128
Naushahro	238	342		..	..	...	...	...	4	252	..	..	229	90	...	..
Hyderabad	159	594	..	...	...	...	...	...	...		...	...	159	594	..	..
Jerruck	151	477	...	117	...	.	...	...	...	...	...	...	151	477	...	117
Total .	991	212	1	245	...	..	.	...	4	252	...	...	986	600	1	245

3. These areas do not agree with those in the reports of the Revenue districts, and attempts to make them do so have failed, because the Survey Records, from which the Collectors' figures are obtained, give the areas of the forests when the original Forest Survey was made 23 years ago. Since then, considerable changes have taken place, and year after year additions and deductions have been made, corresponding with the accretions and erosions on the river frontage. Had these additions and deductions been made after actual surveys, I should now feel inclined to ask the Collectors to adopt my figures, but as I know that they were made on very rough estimates arrived at by Foresters, I consider my figures cannot be relied upon. Mr. Ryan reports that the additions and deductions made this year in the Sukkur Division are fairly accurate, as he personally did some surveying on the river frontage of his forests.

The areas as shown in Forest Records and Revenue Returns do not agree.

4. Owing to constant erosion, there must always be some doubt as to the accuracy of the area of some of our riverside forests, but the discrepancy in the returns of the Forest and Revenue Departments is in some instances so great that I think something should be done to bring them into accord. I would, therefore, suggest (1) that a survey of the whole of the forests should be made by the Sind Survey Department, and, in order to distribute the cost over four years, one Division might be surveyed each year; and (2) that the new River Survey Division of the Public Works Department might be asked to furnish in future the Forest Department with the areas of all the new kachas formed in front of the forests. I could then give my forest areas for incorporation in the Revenue Reports.

A re-survey of forests suggested.

Area excluded during the year.

5. Of the areas shown under column "Excluded, &c.," 1,175 acres were disforested in Deh Shahbeg, Taluka Labdaria, under Government Resolution No. 1,652 of the 4th March, 1891, and 153 acres of land were disforested and transferred to the Public Works Department for the construction of the Pritchard Canal and the Pateji branch of it under Government Resolutions No. 6,744 and No. 4,08,347 dated, respectively, the 30th September, 1891 and the 4th December, 1891. The balance of 1,484 acres of land belonging to the Magsi forests was entirely washed away by the river.

Lands selected for reservation.

6. The lands that have been selected for reservation and notified under Section 4, but the Forest Settlement of which has not yet been completed, are given in the following statement:—

Forests.	Talukas.	Area in acres.		Year in which notified.
Khairwah	Jacobabad.	56	30	1886
Gokalpur		64	30	
Tarai	Naushahro Abro.	2,349	5	1887
Chango Rahuja		1,749	35	
Choi		3,132	20	
Adamji		4,352	25	
Phohyarai		743	4	
Masti Khan...		225	...	
Adulpur	Ghotki ...	1,074	1	1890
Do.	Do. ...	6	36	1892
Kacha Khanota	Hala ...	2,880	...	1890
	Total...	16,634	26	

Kacha lands selected for reservation.

7. Under the orders of the Commissioner in Sind, kacha lands situate on the banks of the River Indus were selected for reservation, the preliminary draft notifications of which under the Indian Forest Act, submitted to the Commissioner through the Deputy Commissioners and Collectors of Districts, were as follows:—

Districts.	Talukas.	Area in Acres.	
		A.	G.
Upper Sind Frontier	Kashmor	23,589	29
Shikarpur	Ghotki	6	36
Hyderabad	Kandiaro	1,594	30
Do.	Hala	24,043	6
Karachi	Manjhand	579	...
Do.	Tatta	1,523	24
	Total...	51,337	5

Kachas.

8. Sind is the land of kachas, and the Indus is the father of them. Whenever the river in its course comes in contact with a stratum of hard earth, its current is at once arrested; the hard clay acts as a groin, and, in conformity with the law of reciprocity of curves, the set of the river is

immediately diverted to some point on the opposite bank. The stream then commences its work of destruction. It eats away the soft earth, and will continue to do so until it is again checked by another stratum of hard clay. At the the same time, it begins to deposit its silt on the side from which it has been forced, thus forming a bank which eventually developes into what is locally known as a kacha. This process of erosion and accretion goes on,—and has been going on for centuries,—every time the river is in flood, and one might, perhaps, be led to suppose that the continual alterations in the set of the river would form as much land as they wash away. But waste and repair are by no means equal. The accretions sometimes remain, and are sometimes washed away again; and experience has shown that only a few of the kachas formed may be expected to remain as permanent accretions. Kachas in their infancy are either mud-banks or sand-banks; if the latter, they are perfectly useless, either for agricultural or forest purposes. All the really productive kachas are of mud, and the Sind forests owe their existence to them. In short, it is only along the banks of the river, or in some depression leading from it, that forest growth is possible. Every one of the Sind forests stands on an ancient kacha, for on the inland side of the forests are still to be traced a series of ridges which once formed the banks of the river. But forests, like kachas, are in danger of destruction by erosion. What the fires of the Presidency proper are to its forests, these erosions are to the forests of Sind, and during the last ten years large forests areas have completely disappeared. Shah Bela, whose area once stood at 13,000 acres, now measures 2,500 acres only. Another, the Kati Nurketi, of over 3,000 acres, now ceases to exist; while in the Naushahro Division, the Khairidara forest, once 13,000 acres in extent, is now represented by two blocks of about 3,000 acres each. These are but a few instances of the losses we have suffered; and to supply them the Department can only look to the acquisition of those kachas which appear likely to become permanent. It is, therefore, with great pleasure that I have to acknowledge the action of the Commissioner in Sind in this matter. He has not only impressed upon the Revenue Officers of the Province the necessity of giving the Forest Department as much land as possible along the banks of the river, but he has also pointed out that it is the duty of Forest Officers to apply for all uncultivated kachas, if they be suitable for forest purposes. Writing to me on the 8th September, 1891, the Commissioner stated—

> "I have called on the Collectors and Deputy Commissioners for returns of kacha lands suitable for forests, and, in view of the exhaustation of the present wood-supply, you should, I think, take early measures for settling with those officers for the reservation of areas all down the river. You should, of course, act in consultation with the Collectors concerned. It is not my wish that kacha lands yielding land revenue should be touched, unless in case of small areas which might interfere with the formation of large blocks. But I am of opinion that before kacha land covered with lai and other jungle is given out for cultivation, suitable and sufficient areas for forests must be reserved. Your efforts should, I think, be concentrated upon lands adjoining the river, inclusive of the Nara Valley, and naturally watered, instead of wasted upon forests incapable of reproduction except at a considerable cost."

The policy indicated in the above extract is an important one, and in my opinion it is the only one that will save the Sind forests from exhaustation. The acquisition of river frontages will alone render the forest area sufficiently productive to meet the ever-increasing demands of the Province, and I have to express my great obligation to the Commissioner not only for the expression of his opinion, but also for the assistance he has rendered me in the acquisition of kacha lands. If Revenue Officers will only act up to the spirit of the above letter, and I am allowed to take up sufficient areas along the banks of the river, I can begin, as applications are made for the land, to

disforest what may be looked upon as the "unable-to-be-watered" portions of our forest areas.

But a kacha appears to be an agricultural tit-bit; the zamindar covets them, and the Revenue Officer is loath to let them slip out of the hands of his own Department. When the Forest Officer applies for them, a similar desire for possession seems to simultaneously enter the mind of the agriculturalist, and the kacha is reported upon as "fit for cultivation," although in many instances the cultivator is too poor to clear it of the growing jungle, and although there may be an abundance of uncultivated land in the immediate neighbourhood. The battle of the kacha then commences. A voluminous corespondence, ending sometimes in a reference to the Commissioner, ensues; sketch maps showing the position of the kacha and reports connected therewith pass between the Revenue and Forest Departments and months frequently elapse before the fate of the kacha is decided.

Now, a kacha in the first year of its existence is generally too low to admit of any kind of cultivation; the second or third year it may, perhaps, be utilised for raising fodder crops, and it is only when a growth of jungle begins to show itself that there seems any probability of its developing into permanent forest. This is the precise stage in the life of a kacha alluded to by the Commissioner in the letter from which I have taken the liberty to quote; and, considering the impossibility of forest growth away from the river, I think it would greatly simplify matters if it were distinctly understood that, until the productive area required for forest purposes is complete, all newly formed and uncultivated kachas should, without question, be handed over to my Department. It is only by the acquisition of such lands that loss by erosion and drought can be made good. While the jungle is growing on the kachas, they afford excellent grazing for cattle, and only along the river can forest and pasture exist side by side. These areas managed by the Forest Department would afford better pasture than land outside forest limits. I shall hereafter allude to the annihilation of many of the former grazing grounds of the Province, and I think that Government should look not only to the annual land revenue, but to the general benefits which the Province derives from its forest areas. There can be no doubt that, far more than railways and irrigation works, far more than schools and police organisation, the weal or woe of a country depends upon the use made of its forests. Timber, fuel and grass are important elements in the economy of a district, quite as important as the cultivation of cereals, yet there is a tendency at the present day to regard the latter as the one thing of paramount importance.

As I have pointed out to the Commissioner, if the dried-up areas are to be disforested and we are to continue to meet the enormous demands made upon us for fuel, we shall require to have our present forests supplemented by a considerable area along the banks of the river; and it is only by the acquisition of permanent kachas that the Department can hope to get land suitable for forest purposes.

Action of the river on forest frontage

9. The following statement shows approximately the action of the river on the forest frontage during the year:—

Divisions.	Area lost, acres.	Area gained, acres.
Sukkur	1,456	5,698
Naushahro	3,877	1,700
Hyderabad	475	1,657
Jerruck...	1,223	...
Total ...	7,031	9,055

10. Rs. 3,667 were spent on clearing those banks which were threatened by erosion, and the material thus collected realised Rs. 4,732. The balance undisposed of at the end of the year is estimated to be worth Rs. 1,518.

Forest area in the Thar and Parkar District

11. The land selected in the Thar and Parkar District, and mentioned in para. 3 of last year's report, has been notified, and the forest settlement is being carried out by the Assistant Collector attached to the Deputy Commissioner of the District.

My proposals for an establishment to work this area were not approved of by the Commissioner in Sind, because he thought the work would be better in the hands of the Deputy Commissioner of the District. Difficulties, however, appear to have arisen, owing to the want of an establishment, and a call was made upon the Forest Department for assistance, and I was directed to provide the necessary funds. I am still of opinion that this land should be placed under the Forest Department, and an extra establishment given for its working.

Chapter II.

Survey, Working Plans and Annual Operations.

Work of the Surveyor.

12. One of our Surveyors, having obtained an appointment under the Hyderabad Municipality, resigned during the year, and the other has been employed in surveying and mapping kachas for notification under the Forest Act, and his work has been conducted under the supervision of the Deputy Conservator of Forests, Sind Circle, and the Divisional Forest Officers, Sukkur and Hyderabad.

Cutting and cost of compartment lines.

13. During the year, 134½ miles of compartment lines were cut and cleared at an average cost of Rs. 13-5-0 per mile. The details of the work are given in the following statement :—

Area cut up into compartments up to 31st March, 1891.		Area cut up during 1891-92.		Total area cut up into compartments.		Area still remaining to be cut up.
Acres.	Length in miles of rides 20 feet wide.	Acres.	Length in miles of rides 20 feet wide.	Acres.	Length in miles of rides 20 feet wide.	Acres.
Sukkur Forest Division.						
1,87,479	1,171	8,516	53	1,95,995	1,224	87,924
Naushahro Forest Division.						
79,004	493	3,760	23	82,764	516	66,698
Hyderabad Forest Division.						
95,237	483	1,280	7	96,517	490	5,824
Jerruck Forest Division.						
86,872	478	2,581	30	89,453	508	7,641
4,48,592	2,625	16,137	113	4,64,729	2,738	1,68,087

The task of the Sind Forest Officers.

14. "*To provide working plans for a constantly fluctuating productive area, by which to meet a demand equal to twice the annual yield, and yet ensure reproduction over an area where an equable forest growth is an utter impossi-*

bility." Such is the task set before the Sind Forest Officer, and it is a task by no means easy of accomplishment.

Forest area continually fluctuating and the water supply uncertain.

For the success of any working plan, two things are absolutely necessary: (1) there must be fixity of forest area, that is, the Forest Officer must know what productive area is really at his disposal; and (2) there must be an assured and evenly distributed water-supply, in order to ensure an equable forest growth. Given these two things, and little difficulty need be experienced in providing working plans for any forest and in carrying them out in their entirety. In Sind, however, both these essential conditions are wanting. The productive area is constantly fluctuating; the Forest Officer may find large areas, upon which he has been depending for a good supply of fuel, lost owing to erosion, for when erosion once sets in, no one can foresee when or where it will end. Then, as to the water-supply. It cannot be said of Sind, as of some parts of India, that the rain comes down as if "the waters that are above the firmament" had decided to stay there no longer. If these waters could be arranged in the manner of a shower-bath, ourselves to pull the string, then forest growth and reproduction would be comparatively easy; but with a rainfall scarcely sufficient to lay the dust, and the whole water-supply dependent on the rise of the river, which may or may not carry its waters to all of the forests, or to a portion only, thus giving great inequality of forest growth, scientific forestry in Sind is by no means an easy task.

Scientific forestry almost impossible in Sind.

Place the cleverest Continental Professor of Forestry in Sind, and say to him "Here, you are in charge of 1,000 square miles of forest, one-third of which is incapable of reproduction; your rainfall is next to nothing, and part of your forest area may or may not be watered by inundation; you must remember that you are liable to lose thousands of acres by erosion, but you must be prepared to supply about double your annual yield, and you must not fail to show a net revenue of between two and three lakhs of rupees. Now, produce your working plans, remembering that in your plans for reproduction and conservancy you must for the time being forget your Continental ideas of grazing, and be prepared to give to villagers the rights and privileges conceded to them by the Revenue Officer; and you must bear in mind that your controlling staff will consist of yourself, one European Assistant and three Native Sub-Assistants." The look of utter despair on the face of the poor Professor and the expressions that would escape his lips, as his position began to dawn upon him, may be better imagined than described. He would be simply staggered. We should hear very little use made of such scientific phrases as "reboisement" and "artificial re-generation:" he would quickly be brought face to face with "the factors of the locality," and he would soon be an authority on "the hygroscopicity of sands." In short, he would find himself surrounded by unlectured-of, unread-of and unheard-of conditions. His beautiful theories, one by one, would be cast to the winds; he would be compelled to feel his way so gradually, and adapt himself so completely to his surroundings, that in a few years his forestry would be of a decidedly empirical character.

Object of, and necessity for, a working plan

Working plans are undoubtedly necessary for the proper management of a forest, but their object is simply to work the forests to which they apply in such a way that the forests may meet the demands made upon them without waste, and without impairing the supply. Forests, however, are not made for working plans, but working plans for forests; and even under the adverse circumstances attending forestry in Sind, working plans are absolutely necessary, if the forests are to be cut with a view to reproduction, and if complete exhaustation is to be prevented What we have done is this.

Actual operations carried on in the Sind Circle.

We have ascertained as far as possible the actual productive area of each forest, an average acre of which gives a certain yield. The average yield per acre multiplied by the number of productive acres gives the growing stock. From my own observation and experience, and after consultation with the Forest Officers of the Circle, I have ascertained that a 12-years' rotation for fuel is best suited to the Sind forests. The growing stock divided by twelve ought to give the annual yield, and this ought to be the only amount cut; but unfortunately the annual yield is only equal to one-half the demand made upon us. If, therefore, the forests are not to be overworked, that yield must be supplemented by cuttings from the Revenue jungles. We have, therefore, to adapt ourselves to circumstances, and to do the best we can. To make our system workable, each forest has been divided into compartments half a mile square, and work proceeds as follows:—

Before any wood-cutting commences, the Divisional Forest Officers ascertain which compartments are fit for cutting, that is, in which compartments the timber would deteriorate, if left uncut. These compartments are the first ones selected for cutting. The Range Forest Officer enters and selects the youngest, straightest, and most promising trees for the production of timber. From five to ten of such trees are marked and left to grow, the rotation allowed being three cuttings of fuel to one of timber. The clearing of the selected compartment is then proceeded with. The mature timber is cut and removed to the depôts, and what is departmentally known as locomotive and steamer fuel is then taken out; the crooked and useless trees are converted into charcoal; and the thin branchwood is used for fencing. The compartment is then closed to grazing of every kind. It will remain uncut for twelve years; and should the water-supply not not fail, there is, as a rule, enough seed in the ground to ensure reproduction. When the new crop is sufficiently strong and beyond danger, buffaloes and cows are admitted. Goats are, of course, excluded until the growth is quite beyond their reach. A goat will do in a few hours more damage than a Forest Officer can repair in as many months; and there is no doubt that each of these little animals destroys every day that it is at large more than its own value. But there is a stage in forest growth when thinning-out requires to be done. At this work, the goat is an excellent workman; he will soon give light and room for growth to the young saplings, and he does his work free of charge,—an important point where expense has to be considered.

Such is the working plan at present in operation in the Sind Circle; and if it be carried out systematically, and for any length of time, it may confidently be predicted that the yield per acre will be considerably enhanced.

Cutting formerly in the hands of contractors.

15. For years past, the chief part of the wood-cutting has been done by contractors, who, being allowed fo cut over the whole area of a forest, naturally chose to cut the parts near the banks of the river, or the particular railway stations they were called upon to supply. The contractors took whatever came nearest to hand, and left what did not suit them, or what was inconvenient of cutting and carriage. The result is that, while many parts of the forest have been almost denuded of trees, there are other portions which, owing to a want of systematic cutting and clearing in the past, have never yet yielded the slightest return.

Systematic cutting introduced and insisted upon.

16. After a careful inspection of the Sind forests and a study of the rate of growth of the various kinds of trees found in them, I have come to the conclusion that a system founded upon a 12-years' rotation is best suited to produce a regular supply of fuel. With this object

in view, I have divided each forest into compartments of about half a mile square and confined my cutting to as many compartments as would make about $\frac{1}{12}$th of any forest area so divided.

Work of contractors very unsatisfactory. Proposed change.

17. I tried this plan throughout Sind last year, and, where the cutting was done departmentally, it was a success; but when the work was in the hands of the contractors, I am sorry to say it was a failure. In the Central and Lower Sind forests, the railway fuel contractors did not work satisfactorily in the compartments allotted to them for the year's cutting, and they gave much trouble to the Divisional Forest Officers. It has, therefore, been thought necessary to work the forests systematically by departmental agency from the 1st October next, on which date the present contractors' agreements for supplying locomotive fuel will expire. Application for a temporary establishment to enable this to be done was submitted to Government, but I am sorry to find Government inclined to postpone systematic departmental fellings, pending the re-organisation of the establishments. Circumstances may delay, or even prevent, a re-organisation of the establishments; but the question of systematic felling in Sind cannot be much longer delayed without serious injury to the forests. Although proper conditions were last year inserted in all contracts, and although Divisional Forest Officers did their utmost to enforce those conditions, contractors did not, and would not, clear the compartments set apart for cutting as they should have been cleared. In short, I am of opinion that, if the work is to be done well, it must be done by departmental agency; and as the matter is of such vital importance to the Sind forests, I do hope Government will at once grant me the assistance asked for.

Boundary-marks, &c.

18. The boundary-marks, paths and compartment lines in all forests were found in good condition.

CHAPTER III.

Protection and Improvement.

Section I—Establishment.

Change in, and addition to, the controlling staff.

19. Colonel MacRae having retired from the service in May, 1891, Mr. Hexton was appointed 3rd Grade Conservator of Forests, and held charge of the Sind Circle till the close of the year. Mr. H. L. Napier arrived on January 1st, and was attached to the Sukkur Division.

Divisional Forest Officers.

20. No other changes took place among the superior staff of the Sind Circle; and the charge of the respective Forest Divisions was held by the officers mentioned in the subjoined statement:—

Names of officers.	Division.	From	To	Remarks.
Mr. G. M. Ryan	Sukkur ...	1st April, 1891..	27th July, 1891.	Mr. Ryan was absent on privilege leave for 3 months, and Mr. Hexton held charge during the period in addition to his own.
Mr. W. S. Hexton	Do. ..	28th July, 1891	27th Oct., 1891.	
Mr. G. M. Ryan	Do. ...	28th Oct., 1891.	31st Mar., 1892.	
Mr. Tuljaram	Naushahro ..	1st April, 1891.	Do. ...	
Mr. Shaukiram	Hyderabad ...	Do. ..	Do. ...	
Mr. Neribdas	Jerruck ...	Do. ..	Do. ...	

21. The number of trained Range Forest Officers mentioned in para. 23 of last year's report has increased to four, and a fifth trained officer is expected from the Poona College shortly. Three more have joined the Forest Class.

The trained Range Forest Officers of the Circle.

SECTION 2.

General Protection and Breach of Forest Laws.

Cases tried by Magistrates.

22. A comparative statement for two years, showing the number of cases tried by Magistrates with their result, is given below :—

Divisions.	Number of cases tried before Magistrates		Number of convictions.	
	1890-91.	1891-92.	1890 91.	1891-92.
Sukkur	25	11	14	3
Naushahro	15	13	6	9
Hyderabad	14	9	11	8
Jerruck	5	2	5	1
Total ...	59	35	36	21

Only important cases sent for trial.

23. The decrease of 24 cases taken into Court over last year is attributed to the fact that only serious cases were sent for trial, the more trivial ones being compounded under Section 67 of the Indian Forest Act.

Case of Muso Bughio.

24. The proceedings in the case of Muso Bughio, mentioned in para. 27 of last year's report, were revised by the Sadar Court, which directed that he should be retried by the Sub-Divisional Magistrate of Sehwan. The latter Magistrate convicted and sentenced Muso Bughio to undergo two months' simple imprisonment and to pay a fine of Rs. 1,000. The accused made an appeal to the Sessions Court of Karachi, which reversed the order of conviction passed by the Divisional Magistrate, and Muso Bughio was therefore acquitted.

Cases compounded under Section 67.

25. The number of cases compounded under Section 67 of the Indian Forest Act is given in the following statement:—

Names of Divisions.	Illicit grazing.		Theft.		Other offences.		Compensation.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	424	1,276	84	194	1	1	977	1,602
Naushahro ...	219	175	19	40	40	22	282	238
Hyderabad ..	353	483	208	162	...	...	922	1,054
Jerruck	300	377	6	16	12	6	479	524
Total ...	1,296	2,311	317	412	53	29	2,660	3,418

23. Want of fodder, owing to the excessive drought, drove large numbers of cattle-grazers to the borders of the forests, and there appeared an evident desire to get, if possible, free grazing within forest limits. Great vigilance on the part of the Forest subordinates resulted in the detection of an increased number of attempts at surreptitious grazing, hence the increase in the amount of compensation paid.

Increase in number of cases caused by excessive drought.

27. Last year, I was able to point out a gradual fall in the average compensation paid per case; and it is satisfactory to note that, although there has been an increase in the number of cases, there has been a still further reduction in the average compensation taken per case, the respective amounts being Re. 1-9-7 in 1891 and Re. 1-3-10 in 1892.

Rate per case paid as compensation.

28. The amount accepted as compensation up to Re. 1 and upwards in the cases compounded under Section 67 of the Indian Forest Act is given in the following statement:—

Rates paid as compensation under Section 67

Districts.	Names of Divisions.	Fines inflicted.		
		No. of cases.	Amount.	
Upper Sind Frontier	Sukkur	46	Up to Re.	1
		4	" Rs.	2
		3	" "	3
		3	" "	4
		3	" "	5
		1	" "	7
	Total ...	60		
Shikarpur	Sukkur	952	" Re.	1
		288	" Rs.	2
		89	" "	3
		27	" "	4
		21	" "	5
		5	" "	6
		5	" "	7
		3	" "	8
		7	" "	9
		4	" "	10
		2	" "	11
		2	" "	12
		1	" "	14
		2	" "	15
		1	" "	16
		1	" "	19
		1	" "	23
	Naushahro	49	" "	1
		5	" "	2
	Total	1,465		
Hyderabad	Naushahro	56	" Re.	1
		24	" Rs.	2
		10	" "	3
		1	" "	4
		4	" "	5
		2	" "	8
		1	" "	14
	Hyderabad	390	" "	1
		73	" "	2
		28	" "	3
		15	" "	4
		23	" "	5
		4	" "	6
		3	" "	8
		4	" "	10
		3	" "	15

Districts.	Names of Divisions.	Fines inflicted. No. of cases.	Amount.
Hyderabad—*continued.*	Jerruck	17	Up to Re 1
		1	„ Rs. 2
		1	„ „ 3
	Total ...	665	
Karachi	Naushahro	67	„ Re. 1
		15	„ Rs. 2
		1	„ „ 3
		1	„ „ 4
		1	„ „ 6
	Hyderabad	42	„ „ 1
		9	„ „ 2
		3	„ „ 3
		23	„ „ 4
		13	„ „ 5
		2	„ „ 6
		2	„ „ 7
		2	„ „ 10
		1	„ „ 15
	Jerruck	242	„ „ 1
		63	„ „ 2
		15	„ „ 3
		10	„ „ 4
		12	„ „ 5
		1	„ „ 6
		1	„ „ 7
		2	„ „ 10
		2	„ „ 20
	Total cases ...	530	

Number of cattle impounded.

29. The number of cattle impounded for grazing in open and closed forests during the year under report is given in the subjoined statement:—

Names of Divisions.	Number of cattle impounded in Open forest.	Closed forest.	Total.
Sukkur	5,584	777	6,361
Naushahro	3,315	3,423	6,738
Hyderabad	2,870	5,375	8,245
Jerruck	1,092	1,406	2,498
Total ...	12,861	10,981	23,842

SECTION 3—FIRES.

Fires, the result of accident rather than of design.

30. Fires have, of course, occurred, and will occur so long as herdsmen roam the jungle, and boatmen encamp on the banks of the river. The castaway remains of a hukah, or the sparks from the cooking fire of boatmen are accountable for many of our conflagrations. It is, however, satisfactory to find that the fires in the Sind Circle bear no comparison whatever to the immense fires of the Presidency proper; and I am inclined to think that they are the result of accident rather than of wilful damage.

A man caught in the act of firing the jungle.

I have, however, to record that, for the first time in the history of the Sind Forests, a man was caught in the very act of firing the jungle. The culprit was a wood-cutter, who, finding some difficulty in approaching a tree he was going to cut, owing to a growth of grass and jungle, took the shortest way of clearing it by setting fire to the grass by which it was surrounded. I am sorry to say that an area of over 300 acres was burnt. The man was ordered to be prosecuted, but the result of the trial is not yet known.

Increase of fires due to excessive drought.

Considering the dryness of our forests and their openness to grazing, it is really surprising, as well as satisfactory, that so few fires take place. The increase, which will be noticed in the subjoined table, is owing to the immense drought and the greater readiness of the grass to take fire.

Number of fires.

31. The following is a comparative statement of the number of fires and the area burnt in each Forest Division :—

Names of Divisions.	Number of fires in		Area burnt, acres in	
	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	42	85	2,410	3,539
Naushahro	6	8	117	6
Hyderabad	2	7	104	580
Jerruck	2	12	40	3,539
Total ..	52	107	2,671	5,539

Section 4—Grazing.

Grazing within forest limits.

32. The past year has been a trying one for cattle. The rainfall was abnormally small even for Sind. The hills were destitute of grass, and the inland tracts, once the grazing grounds of the Province, were as bare as a rock. The consequence was that cattle were driven to the banks of the river and the borders of the forests. Never before during my twenty-seven years' service have I seen cattle in so pitiable a condition. I have seen living skeletons chewing dried chips left by the wood-cutters, and devouring with apparent relish shrivelled up blossoms fallen from the trees. From a forest point of view, these animals should have been excluded ; but in their starved condition, exclusion meant death ; and pity compelled what duty forbade me to do. Another such season, and I am afraid that few cattle will remain even for agricultural purposes.

Cattle-grazing is becoming a serious question in both Upper and Lower Sind. The whole character of the country as grazing-ground has been completely changed by the construction of bunds. No doubt, bunds are of great service as protections from floods, and they have rendered material assistance in bringing land under cultivation, but the Forest Officer has cause to view their introduction with suspicion, and the cattle-grazier their construction with feelings of regret. Bunds keep out the floods which once watered the plains, and the result is seen in dried up forests, and the complete destruction of what were once excellent grazing grounds. Greater demands are in consequence made upon our forests for grazing purposes, and just in proportion as grazing increases so does forest deterioration ensue. These remarks are made in no spirit of opposition to the Public Works Department, the value and importance of whose work I readily acknowledge,

but simply to point out how the construction of bunds has effected the grazing-grounds of the Province, and so thrown a large number of cattle into our forests, thus adding to the difficulties of forest conservancy. A bund is no doubt difficult to manage and keep in order, but if the Public Works Department could regulate floods, as well as prevent them, the value of its work would be greatly enhanced. I do not pretend to be an expert in irrigation matters, but seeing as I do every year the effect on the country caused by the construction of bunds, it has often occurred to me whether it would be possible to introduce some system of sluices whereby grazing grounds might be preserved and our forests saved from destruction.

The question of free grazing is a matter for serious consideration, for, what has been granted as a privilege is now frequently demanded as a right. It is necessary to remember that there were no grazing rights in the days of the Amirs, for had there been, they would be found connected with the forests which existed at annexation. Such, however, is not the case; for of the present revenue derived from grazing nearly the whole is collected for the use of the ancient forests. The right of free grazing has been introduced by our Settlement Officers, no doubt with the very best of intentions, but I am of opinion that, in many instances, the Settlement Officer has been far too liberal in granting grazing privileges within newly acquired forest land. Scarcely a single piece of new land is ever acquired by the Forest Department without its being saddled with such privileges; and I am afraid there would be little chance of getting the land in question, unless I agreed to the rights and privileges proposed by the Settlement Officer. In one instance mentioned in last year's report, where the right of grazing had been given to the inhabitants of twenty villages, I find that a gradual migration from excluded villages to the more favoured ones is taking place. Again, in the Kashmor taluka, on the boundary of the Bahawalpur State, where the people are of the same race, caste and occupation, I found that, while over the border grazing fees are demanded, the inhabitants in British territory are demanding free grazing.

From a forest point of view, cattle grazing is an evil. Much damage, often difficult of detection, is caused to forest growth by herdsmen in charge of cattle, and it would be well if Settlement Officers would remember that a grant of free grazing not only adds to the work of the Forest Officer, but deprives the State of revenue to which it is legally entitled. When land is taken up by the Forest Department, the grazing improves, and I think it only right that it should be paid for. I hope my remarks will not be misunderstood. I would give as many privileges to the poor of a village or the cultivators of a district as they deserve and as is consistent with my duty as a Forest Officer, but there is a limit, and I am of opinion that the right of grazing in newly acquired forest land should be sparingly conferred. Continental methods of sylviculture are frequently held up as models for imitation. Would that Continental rules as regards grazing were considered of equal importance! In France, "no right to pasture any kind of animals can be exercised in any part of a forest, not declared out of danger by the Forest Department, which has also the power to limit the number of animals to be admitted and the period during which they may graze, with reference to the condition of the forest and the quantity of grass in it. Right-holders can only pasture animals which they keep for their own use, not those kept for sale." Comment on the above is superfluous.

Free grazing within forest limits.

33. The following number of cattle grazed free under the Forest Settlemet Officer's proposals :—

Buffaloes	2,261
Cows	13,199
Donkeys	148
Horses	180

34. A very vague idea appears to exist in the minds of many villagers respecting the meaning and application of the terms "a right" and "a privilege." A right may be claimed, and, when once allowed, cannot be taken away without a breach of faith; but a privilege, although granted, may be withdrawn at the will of the giver, should circumstances require it. There is perpetuity connected with the one, but the power of withdrawal associated with the other. Unfortunately, these two terms have got very much mixed, and what has been granted as a privilege is now looked upon, and frequently demanded, as a right.

Rights and privileges.

The procedure to be followed in forest settlements is distinctly pointed out by the Inspector-General of Forests in his memorandum dated 27th April 1887. He states:—

> "There is nothing in the Forest Act which justifies Forest Settlement Officers in providing for the proscriptive wants of non-existing settlers, or for a future and possibly more numerous generation; nothing which permits the concession by a Forest Settlement Officer of more extensive rights than those which he finds to exist at the time of settlement. The rights claimed must be actual existing rights, vested in an individual or person, or in a definite body of persons, such, for instance, as co-owners, or a village community. But they must be existing and vested in some person or persons who can claim them at the time of settlement. A prescriptive right, to exist at all, must be proved to have been regularly exercised in the past, and in no case can a prescriptive right over any forest be held to have been acquired by the continuous purchase of its produce from its owner, the element of adverse enjoyment, or of enjoyment as a right, on which prescription rests, being wholly wanting."

A caution is given to the Forest Settlement Officer in the following terms:—

> "If the Forest Settlement Officer is permitted to provide for the indefinite proscriptive want of an indefinite proscriptive number of right-holders, he may be providing for the gradual absorption and final extinction of the actually existing "rights of the State."

This seems clear enough; actually existing rights only are to be considered. To rights, as right, I have nothing to say. It is the duty of the Settlement Officer to ascertain what the rights of the people actually are in accordance with the ordinary law, and to place them on record; but it is not the duty of the Settlement Offier to record what he thinks those rights ought to be in order to please them.

The history of the Sind Forest Department shows that the *Shikargahs* or hunting ground of the Amirs were State domains, unincumbered by any rights. When therefore, the lands passed into the hands of Government, and were treated as forests, no claims for free-grazing, free supplies of wood, or any other forest rights were recognized, nor were any made. When Captain Hamilton was Ranger in 1856 and 1857, large additions were made to the Forest area. In many cases, persons in possesssion of land were turned out without compensation. Some of the ousted persons afterwards applied for compensation, and an enquiry into their claims was instituted. Many of the claims were settled by money-payments, but in 29 cases, it was found necessary to allow to the claimants land for cultivation within forest limits. The area thus encumbered with rights was, however, only 3,830 acres. Within the limits of the lands thus allotted, occupants were allowed to cultivate on payment to the Forest Department; but occupancy of these lands carried with it no right to grazing or supplies of firewood from the

surrounding forest. It may, therefore, be stated as a fact that all existing rights connected with the Sind Forests have been granted by the Settlement Officers since the annexation; and it cannot be questioned that the granting of these rights has considerably fettered the hands of the Forest Department and deprived Government of revenue to which it is justly entitled. When Government acquires land for either railway or canal purposes the question of right is speedily disposed of. Why should it be different when it acquires land for forest purposes? On a railway and a canal nothing is grown that can be appropriated, but with a forest it is different. Villagers see an annual present dangling before their eyes, and experience has shown that it is possible to seize it. The prevailing idea in Sind appears to be that, because a person happens to live near a forest, he must have some kind of claim upon its produce. It might as well be argued that a man is in some way or other entitled to an annual supply of liquor from the Abkari Department, because he lives next door to one of its distilleries. It is well known how these claims to forest produce originate, and how the machinery is set in motion to accomplish what is little short of a robbery of State property. The claims to forest produce require very careful examination; for it should be remembered that the settlement of forest land under Chapter II of the Forest Act is a step which fixes for ever the respective rights of Government and private persons over the land. But rights have been so easily acquired, and so liberally conferred in the past that villagers believe they have only to make a demand, get it backed-up by some subordinate official, to shout long enough and loud enough and they will gain their object. Section 18 of the Forest Act gives the Forest Department power to be represented at any enquiry at which the question of rights over newly acquired forest land is considered, and had I either a personal assistant or a sufficient controlling staff, I should certainly depute some officer to represent the Forest Department on such occasions. The legal standing conferred upon such a representative by the Act, his power to cross-examine witnesses who support claims, produce witnesses to rebut claims, comment on documents or evidence, and, if he desires, to prefer an appeal against any decision, to demand from the Settlement Officer a certified copy of such decision, would, I am convinced, result in fewer claims being brought forward and certainly in fewer rights being conferred. For instance, the right, not privilege, of free grazing in the forests of the Rohri taluka, covering an area of a little over 14,000 acres, has been given to the inhabitants of 73 villages. It would be interesting to know by what evidence these persons established their claim. I hope I shall not be misunderstood in this matter. I would be as liberal as is consistent with my duty to the State; but when a privilege granted is looked upon and demanded as a right, then as a Forest Officer I put my foot down and say "No! Under certain circumstances, we may "be able to assist you to thorns, dead wood, grass in times of necessity, and "even timber for agricultural purposes; but you must distinctly understand "that these things are given you as a favour and not as some-"thing which you can demand. Circumstances may prevent us from "assisting you at all; but what can be spared, we will give you, but not as "a right. We will assist you in a reasonable manner, but our assistance will "depend upon your behaviour. In case of any injury to the forests, or "abuse of the privileges given you, we shall hold you jointly responsible, "and we shall withhold the privileges we have granted you."

Many of the Sind forests now require very careful nursing, and the sooner villagers are made to understand that living near a forest gives no claim upon its produce, and the sooner they are taught the difference between a privilege and a right, the better will it be for the property of the State. To expect freedom from fire, and absence of damage in a forest to which the inhabitants of twenty villages have the right of grazing, is to expect an utter impossibility. What should, or should not, be given is a matter solely affecting Government, and it must be determined by the exigencies of the situation. What can or cannot be spared, and which forests can or cannot meet the demands made upon them, are things known only to the Forest

Department, which, acting through the Commissioner of the Province, has never yet failed in its duty.

It is well known that certain persons take a delight in misrepresenting the actions of the Forest Department, and in holding it up as inimical to the agricultural classes. No doubt the interests of the two are diametrically opposed to each other. The duty of the one is to preserve, and the desire of the other is to appropriate; and such a diversity of interest must necessarily produce a certain amount of friction. Without proper restriction, forest conservancy is little better than a sham; and is it for one moment to be supposed that persons possessed with a desire for appropriation can love a department which prevent them from satisfying their desire? It would be absurd to think so.

The fact is a forest is a thing to be plundered, and plundered it will be if villagers get the opportunity. As the guardian of a valuable State property, it is the duty of the Forest Department to prevent that property from being appropriated to the use of those who have no legal right to it. It is its duty to protest against the creation of rights, and the granting of privileges which deprive the State of an annual revenue; and it is its duty to point out that the present system of conferring rights and granting privileges has hampered, and still hampers, proper forest conservancy.

Personally, I would assist the cultivators by every means in my power. I would find them employment in wood-cutting during the season when they are not engaged on their lands; I would hire their bullocks for wood carrying when the animals are not required for agricultural purposes; and the records of my department show that liberal concessions, both as regards grazing and timber, have always been granted in deserving cases, and in times of emergency. But, as a Forest Officer and a servant of the State, I feel it my duty to enter a protest against the idea which exists, and which is still spreading, that, because a person happens to live in the vicinity of a forest, he must necessarily have some claim to part of its produce.

SECTION 5.

Natural reproduction.

A bad year for natural reproduction.

35. Little could be done last year in the shape of natural reproduction A dry season is always detrimental to forest growth, but the drought during the year under report was so great that large numbers of goats and cattle from the hills entered the forests, and the grazing was so close that nearly all the seedlings, except those in actually closed compartments, were destroyed. It was with great difficulty that even the seedlings in closed compartments were saved. The temptation to open a fence was very great, and it was only by the greatest vigilance that the subordinates of the Forest Department were able to protect the natural growth of the compartments which had been closed for reproduction. Foreseeing that such would be the case, the temporary establishment for which I applied included 50 watchers, but up to the time of writing the sanction of Government for their employment has not been received.

SECTION 6.

Artificial Reproduction.

Artificial reproduction a failure in Sind.

36. All attempts to introduce exotics into Sind have resulted in a series of failure. Many efforts, extendidg over a period of thirty years, have been made by the Forest Department to add to the number of species of the Province, but not a single species has been introduced. The cause is not far to seek. In Sind, there is scarcely any rain, the whole yearly water-supply being derived from the inundation. The seeds of most of the trees which have been tried germinate, but the young plants appear to be quite unable to survive the total submersion to which they are subjected during the inundation season.

SECTION 8.

Communications and Buildings.

Repairs to buildings, &c.

37. All necessary repairs to existing Government buildings have been excluded. A few temporary sheds have been erected for the accommodation of the Range Forest Officers of the Circle.

38. No expenditure was incurred in making and repairing roads.

CHAPTER IV.

YIELD AND WORKING.

Section I—Departmental Operations.

Working of Departmental Depôts.

39. The following is the detail of the respective departmental depôts:—

Depôts.	Stock on hand on 1st April, 1891.			Added during the year.			Disposed of during the year.			Balance on 31st March, 1892		
	Timber.	Post and Rafters.	Fuel.	Timber.	Post and Rafters.	Fuel.	Timber.	Post and Rafters.	Fuel.	Timber.	Post and Rafters.	Fuel.
	C. ft.	No.	Mds.	C. ft.	No.	Mds.	C. ft.	No.	Mds.	C. ft.	No.	Mds.
Shikarpur ..	...	..	.	524	10,052		494	6,568		30	3,484	.
Sukkur	782	74	150	15,472	40,452	200	12,039	29,266	350	4,215	11,260	.
Rohri	70	9	..	2,399	11,073	...	1,425	10,798	.	1,044	284	..
Larkana	68	.	2,400	..	...	5,355	19	.	7,455	49	..	300
Sehwan		280	..		7,751	.	...	8,038			2	...
Keti Bander	22	...	1,000	21,415	...	250	21,140	.		297	..	1,250
Kotri	...	...	13,498	1,536	510	1,87,383	1,536	510	1,90,228	..		10,653
Hyderabad	72	14,879	13,913	3,380	1,66,574	1,10,134	3,380	1,32,049	1,18,672	72	49,404	5,375
Total ..	1,014	15,251	30,961	44,726	2,36,412	3,03,322	40,033	1,87,229	3,16,705	5,707	64,434	17,578

Sales at the various Depôts.

40. The quantity of timber and fire-wood sold at each depôt is given below:—

Depôts,	Timber—C. ft.		Posts and Rafters—No.		Fire-wood—Mds.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Shikarpur	1,093	494	11,038	6,568	189	...
Sukkur	13,109	12,039	20,296	29,266	719	350
Rohri	906	1,425	9,762	10,798	..	...
Larkana	16	19	60	...	2,324	7,455
Sehwan	...	..	7,361	8,038	...	...
Keti Bander	7,127	21,140	...	...	250	...
Kotri	344	1,536	...	510	1 44,937	1,90,228
Hyderabad.....	11,189	3,380	1,61,486	1,82,049	69,883	1,18,672
Total ...	33,784	40,033	2,10,003	1,87,229	2,18,302	3,16,705

There has been a decrease in the sale of timber at nearly all the Depôts. This is due to the import from the Upper Indus Valley of chil and deodar, which, being sawn timber, is in great demand at Shikarpur, Sukkur and Hyderabad. The increase in the sale of nearly 14,000 cubic feet at the Keti Bandar Depôt is due to the demands made by indents from the Ordnance Factory, Bombay. At Hyderabad, the increased sale is accounted for by the requirements of distilleries, cotton-gins, steam engines, and brick kilns.

Material out from private forests, &c.

41. The following statement exhibits the forest material cut from private forests and unoccupied Government waste numbers and Jagirs, and imported for sale into the towns of Hyderabad and Kotri during the year under report :—

Towns.	Babul logs.	Posts and Rafters of all kinds.	Firewood.	Charcoal.	Babul bark.	Lac.	Planks.	Reed.	Estimated value.
	No.	No.	Mds.	Mds.	Mds.		No.	Bundles.	Rs.
Hyderabad	5,403	36,258	1,68,897	3,922	23,533	465	412	460	20,835
Kotri	646	65,350	49,209	205	3,758	...	158	1,150	5,119
Total ...	6,049	1,01,608	2,18,106	4,127	27,291	465	570	1,610	25,954

Timber supplied to Railway and other Departments.

42. The following statement shows the quantity of timber supplied to Railway and other Departments :—

Names of Departments.	Babul logs.	Babul sleepers.	Babul posts.	Posts and Rafters of all kinds.	Babul bolsters.
	No.	No.	No.	No.	No.
North-Western Railway	20	3,305	510	...	321
Executive Engineer, Sharig	180	...	330	...	...
Harbour Works	...	310	...	...	...
ublic Works	3	...	...	8,582	...
Gun Carriage Department	1,067	...	...	...	...
Total ...	1,270	3,615	840	8,582	321

Fire-wood supplied under Departmental agency.

43. The subjoined statement shows the quantity of firewood supplied under Departmental agency to the State Railway and other Departments and to large consummers for two years :—

To whom supplied.	Firewood in Maunds.	
	1890-91.	1891-92.
North-Western Railway	16,98,751	18,63,527
Hyderabad-Umarkote Railway	...	14,600
Commissioner's Steamer "Jhelum" ...	15,750	24,450
Indus Ferry Steamers	68,390	57,675
River Conservancy Department	6,682	6,625
Public Works Department	1,059	28,200
Karachi Harbour Works	50,139	64,900
Commissariat Department	61,640	98,906
Hyderabad Water Works	54,000	67,438
Sukkur Municipality	6,965	10,500
Hyderabad Jail	3,297	2,718
Government Farm, Hyderabad	9,150	13,750
Nawab of Bahawalpur's Steamer	...	4,244
Seth Vishindas, Contractor	...	43,699
	19,75,823	23,01,232

Timber felled Departmentally.

44. A statement showing the quantity of timber felled departmentally and disposed of in the forests to private purchasers is given below :—

Divisions.	Timber.	Bahan posts.	Babul posts.	Bahan rafters.	Jhau rafters.
	C. ft.	No.	No.	No.	No.
Sukkur	1,955	...	354	8	...
Naushahro	2,574	...	26	...	451
Hyderabad	1,623	50	...	300	...
Jerruck	4,465	...	...	...	...
Total ...	10,617	50	380	308	451

SECTION 2.

Removal of produce by purchasers.

Value of timber and firewood removed other than that removed under the permit-pass system.

45. The following statement exhibits the value of timber and firewood removed from the forests, other than that removed under the permit-pass system, for two years :—

Divisions.	Timber.		Firewood.	
	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	5,939	5,972	828	1,204
Naushahro	701	963	86	466
Hyderabad	1,547	908	2,742	2,480
Jerruck	766	629	320	329
Total ...	8,953	8,472	3,976	4,479

Comparative statement of receipts at the various Ghats and Nakas.

46. The following is a comparative statement showing receipts from the different ghats and nakas in the Sind Circle :—

Divisions.	Ghat.	Revenue realized in	
		1890-91.	1891-92.
Sukkur	Rahuja, Jhali, Rohri	10,894	9,929
	Saddar, Stewart, Khura	10,449	11,523
Naushahro	Larkana	2,309	2,309
	Garhi Yasin	1,032	938
Hyderabad	New Fuleli, Old Fuleli, Hajipur	1,134	1,168
	Total Rs. ...	25,818	25,867

req-

Decrease in receipts in the Sukkur Division.

47. It is to be regretted that for the last three years, there has been a gradual decrease in the receipts of the Sukkur Division. This has received the most careful attention of the controlling staff, but all attempts to increase the receipts have failed. It is stated that passes issued by the Revenue Department cause fewer people to go to Government forests for fuel. It would, however, be interesting to know whether the decrease in the receipts of the Forest Department has been met by a corresponding increase in those of the Revenue Department.

SECTION 3.

FREE GRANTS.

48. Free grants of timber to the value of Rs. 1,294-7-0 were made for building and repairing houses and temples during the year against Rs. 1,773-8-1 in the preceding year.

SECTION 4.

SUMMARY OF PRODUCE.

Timber extracted from forests by departmental agency.

49. The quantity of timber extracted from the forests by departmental agency is given below :—

Names of Divisions.	Timber, cubic feet.		Posts, No.		Rafters, No.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	15,423	15,913	7,314	8,615	34,212	38,385
Naushahro	677	2,609	236	534	5,000	7,955
Hyderabad	17,623	22,587	2,975	5,083	1,40,961	1,13,200
Jerruck	11,599	21,415	2,000	8,950	19,500	28,600
Total ...	45,322	62,524	12,525	23,182	1,99,673	1,88,140

Quantity of timber cut and removed by purchasers.

50. The following is a comparative statement for two years of the quantity of timber cut and removed from the forests by purchasers :—

Divisions.	Timber, cubic feet.		Posts, No.		Rafters, No.	
	1890-91.	1891-92.	1890-12.	1890-91.	1890-91.	1890-91.
Sukkur	5,441	5,729	63	770	55,298	57,677
Naushahro	1,242	1,687	191	...	11,219	32,425
Hyderabad	4,139	2,218	718	950	10,141	8,094
Jerruck	1,183	471	5,007	3,585	4,185	13,169
Total ...	12,005	10,105	5,979	5,305	80,843	1,11,365

Yield of timber in each Division.

51. The total yield of timber in each Division is given below for two years:—

Divisions.	Timber, cubic feet.		Posts, No.		Rafters, No.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	20,864	21,642	7,377	9,385	89,510	96,062
Naushahro	1,919	4,296	427	534	16,219	40,380
Hyderabad	21,762	24,805	3,693	6,033	1,51,102	1,21,294
Jerruck	12,782	21,886	7,007	12,535	23,685	41,769
Total ...	57,327	72,629	18,504	28,487	2,80,516	2,99,505

Yield of firewood in each Division.

52. The total yield of firewood in each Division is as under:—

Divisions.	Firewood in Maunds.	
	1890-61.	1891-92.
Sukkur	13,58,767	14,29,661
Naushahro	5,08,653	5,00,822
Hyderabad	5,55,810	8,34,662
Jerruck	3,17,670	2,42,882
Total ...	27,40,900	30,08,027

Yield of charcoal.

53. The total yield of charcoal is given in the following statement:—

Divisions.	Charcoal, Maunds.	
	1890-91.	1891-92.
Sukkur	674	1,486
Naushahro	5,539	9,896
Hyderabad	2,873	4,886
Jerruck	44,474	42,409
Total ...	53,560	58,677

Yield of timber, firewood and charcoal in cubic feet.

54. The total yield of timber and firewood and charcoal in cubic feet is given in the subjoined statement:—

Divisions.	Outturn in cubic feet.			
	Timber of all kinds.		Firewood and charcoal.	
	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	73,340	77,824	74,82,398	77,77,487
Naushahro	19,651	29,368	26,79,141	34,58,707
Hyderabad	1,00,362	90,665	32,16,055	47,05 505
Jerruck	33,501	41,873	17,47,655	19,84,562
Total...	2,26,854	2,39,730	1,51,25,249	1,79,26,261

Total yield of timber, firewood and charcoal.

55. The total yield of timber firewood, and charcoal is given in the following statement :—

		1890-91.	1891-92.
Timber	C. ft.	57,327	72,629
Posts	No.	18,504	28,487
Rafters	No.	2,80,516	2,99,505
Sleepers	No.	1,328	3,626
Firewood...	Mds.	27,40,900	30,08,027
Charcoal...	Mds.	53,560	58,677

Revenue from minor produce.

56. The realisations by the sale of farms for removal of minor produce and the right to fish in the forest waters is given below for two years :—

Divisions.	Babul pods.		Lac.		Munj and sar grass, &c.		Fishery.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	457	424	...	...	887	1,034	2,428	1,848
Naushahro	3,227	1,954	...	...	562	729	928	1,033
Hyderabad	10,113	8,296	1,730	2,372	82	161	570	644
Jerruck	3,019	3,893	...	205	...	...	353	405
Total...	16,816	14,567	1,730	2,577	1,531	1,924	4,279	3,930

In the Sukkur Division, there was a falling off in the revenue derived from fisheries. This is accounted for by fewer depressions being left full of water last year.

In the Naushahro Division, there was nearly a total failure in the babul crop, hence the falling off in the revenue.

Revenue from grazing.

57. The revenue from grazing dues in each Division is given below :—

Divisions.	Grazing Fees.	
	1890-91.	1891-92.
Sukkur	16,384	17,133
Naushahro	9,748	10,151
Hyderabad	16,697	16,825
Jerruck...	14,046	14,891
Total...	56,875	59,000

The increase in the grazing fees is due to the cause pointed out in para. 32 on grazing.

Area of cultivated land within forest limits.

58. The area under cereal cultivation and the amount realised by assessment in each Division is given in the following statement :—

Divisions.	Area under cultivation.				Amount realised by assessment.			
	Kharif.		Rabi.		Kharif.		Rabi.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	661	250	2,607	1,877	1,196	582	10,212	8,012
Naushahro	522	364	3,736	3,977	1,501	1,017	10,750	11,937
Hyderabad	436	247	1,449	1,060	972	791	2,685	2,313
Jerruck	797	788	378	379	2,511	1,916	491	832
Total...	2,416	1,649	8,170	7,293	6,180	4,306	24,144	23,094

The decrease under this head is due to the efforts made to decrease the area under cultivation within forest limits.

CHAPTER V.

Financial Results.

59. The total receipts, expenditure and net revenue for the past two years are given in the subjoined statement :—

	Actuals, 1890-91.	Actuals, 1891-92.	Increase.	Decrease.
Receipts.	6,80,892	7,74,210	93,318	.....
Expenditure.				
A. Conservancy and Works.	3,21,635	4,10,390	88,755	.....
B. Establishment	91,566	91,546	.....	20
Total Expenditure...	4,13,201	5,01,936	88,735	.....
Net Revenue...	2,67,691	2,72,274	4,583	.....

As the net revenue is the largest on record, being Rs. 4,583 more than last year, the financial results may be considered satisfactory. It would have been still larger had not Rs. 9,365 remained outstanding at the end of the year.

CHAPTER VI.

General Remarks.

Cold Season tour.

60. My cold season tour commenced in November. I travelled to Upper Sind, and in doing so, inspected the Sukkur Division. I passed through the Abad Range, and then along the Kashmor Bund to Kashmor, where I met Mr. Steele, the Deputy Commissioner, Upper Sind Frontier, who very kindly instructed his assistant, Mr. Sadik Ali, to accompany and assist me in selecting areas for reservation on the river side of the Kashmor Bund. During this journey, I was particularly struck with the enormous damage done to the jungle by the cattle graziers. Hundreds of acres of *kandi* and *bhan* had been lopped, and the ground was so thickly covered with branches that a passage through the jungle was by no means an easy task. I was also surprised at the way in which zamindars appropriated land for cultivation without the permission of Revenue Officers. Mr. Sadik Ali informed me that the fines inflicted for so doing amounted to a considerable sum annually. After completing my work in the Kashmor taluka, I crossed the river, went through the Rohri Range, and returned to Hyderabad for Christmas.

On the completion of the Christmas holidays, I visited the Jerruck Division, which had not been inspected by a Conservator for four or five years. I gave the forests in this Division a very careful inspection, and, owing to the want of supervision, I found some very strong combinations, anything but beneficial to the Forest Department, between contractors, wood-cutters and the inhabitants of several villages. I deemed it necessary to take immediate steps to break up these combinations, and, in order to thoroughly understand what was going on, I probably spent more time in Lower Sind than I ought to have done.

This work completed, I marched up the right bank of the Indus, went through the forests in the Unarpur Range, and, having crossed the river, returned down the left bank through the Rano and Miani Ranges, completing my tour at the end of April.

The Divisional Forest Officers.

61. I have much pleasure in bringing to the notice of Government the good work done by Mr. G. M. Ryan in the Sukkur Division. He has not only displayed great interest in his work, but he has rendered me great assistance in my endeavours to bring about a new system of working.

Mr. Shaukiram has proved himself a good Forest Officer. He deserves great credit for the admirable manner in which he has kept his closed compartments from being grazed over. He seems to have grasped the idea of the improved system of working, and the results in his division are very satisfactory.

Mr. Napier, an officer trained at Cooper's Hill and sent out by the Secretary of State during the year, was attached to this Circle and reported himself for duty on the 2nd January, 1892.

The trained Range Forest Officers.

62. Of the trained Range Forest Officers, Mr. Mangharam is the best.

Mr. Bulchand, having passed through the College course at Poona with great credit, received an acting appointment, which he now holds.

63. I am glad to report that, on the whole, the Rangers, Foresters and Forest Guards did their work to my satisfaction.

Working of Rangers, &c., satisfactory.

64. Mr. Parmanand, Head Accountant, did the inspection of accounts and records of the various divisions of the Circle with his usual care and thoroughness.

Inspection of accounts, &c.

W. S. HEXTON,

Deputy Conservator of Forests, Sind Circle.

FORM

FOREST DEPARTMENT, BOMBAY,

Area of Reserved

Divisions.	Civil Districts.	Names of Forests.	Area on 1st April 1891. Acres.	Equivalent in square miles. Sq.M.	Acres	Added during the year. Acres.
Sukkur ...	Shikarpur ...	Raoti ...	8,129	12	449	...
		Jamshero ...	6,616	10	216	...
		Daresh ...	1,725	2	445	...
		Ubauro ...	3,150	4	590	...
		Mirpur ...	7,251	11	211	...
		Kaharki ...	1,654	2	374	...
		Reti ...	2,388	3	468	...
		Rangu ...	972	1	332	...
		Narli ...	1,376	2	96	...
		Sarhad ...	3,529	5	329	...
		Islam ...	2,064	3	144	...
		Johanpur ...	4,340	6	500	...
		Bahab ...	8,985	14	25	...
		Budh ...	1,217	1	577	...
		Sadhuja ...	7,641	11	601	...
		Shahpur ...	11,215	17	335	...
		Pawhari ...	587	0	587	...
		Hussenbeli ...	3,407	5	207	...
		Azizpur ...	880	1	240	...
		Ding ...	1,543	2	263	...
		Syedpur ...	8,216	12	536	...
		Rohri ...	22,551	35	151	...
		Sultanpur ...	1,753	2	473	...
		Saliani ...	5,014	7	534	...
		Ghotki ...	4,200	6	336	...
		Adilpur ...	12,676	19	516	...
		Walu Mahar ...	2,648	4	88	...
		Sumowah ...	2,252	3	332	...
		Wasir ...	1,417	2	137	...
		Jarwar ...	2,839	4	279	...
		Abad ...	5,604	8	484	...
		Kadirni Bindi ...	2,306	3	386	...
		Khia Bindi ...	3,118	4	558	...
		Shah ...	13,433	20	633	...
		Bindi Dhareja ...	6,866	10	466	...
		Kadrapur ...	2,564	4	4	...
		Mohro Mari ...	11,857	18	337	...
		Andaldal ...	12,104	18	584	...
		Bagarji ...	13,884	21	444	...
		Raiswah ...	905	1	265	...
		Lakhi ...	3,614	5	414	...
		Ghari Halim ...	2,096	3	176	...
		Kot Sultan ...	17,342	27	62	...
	Upper Sind Frontier	Abad ...	985	1	345	...
		Mehrabpur ...	991	1	351	...
		Dilawarpur ...	925	1	285	...
		Milkiat Sircar ...	1,923	3	3	...
		Bakapur ...	9,830	15	239	...
		Dilmurad ...	1,141	1	501	...
		Zangipur ...	5,334	8	214	...
		Sarki ...	3,773	5	573	...
		Baluchabad ...	765	1	125	...
		Korar ...	875	1	235	...
		Mirpur ...	6,978	10	578	...
		Jangan ...	2,291	3	371	...
		Karampur ...	5,770	9	10	...
		Keti Sadhuja ...	6,001	9	241	...
		Total Sukkur Division...	2,85,519	446	79	...
Naushahro	Shikarpur ...	Dosu ...	4,033	6	193	...
		Keti Ubhuro ...	5,575	8	455	...
		Kanuri ...	3,630	5	430	...
		Sharifpur ...	1,027	1	387	...
		Bahman ...	1,547	2	267	...
		Naoabad ...	2,205	3	285	...
		Phati Bilawal ...	711	1	71	...
		Amrote ...	11,684	18	164	...
		Muso ...	5,930	9	170	...
		Kasimshah ...	2,107	3	187	...
		Nari ...	1,522	2	242	...
		Magsi ...	1,483	2	203	...
		Dangar ...	3,685	5	485	...
		Soi ...	5,108	7	628	...
		Budo Dero ...	1,555	2	275	...
		Ghangherko ...	5,849	9	89	...
		Gaji Dero ...	4,333	6	493	...
		Garhi Yasin ...	25,328	39	368	...

Hyderabad,
30th September 1892.

No. 49.

SIND CIRCLE.

Forests, 1891-92.

Excluded or transferred to other heads.	Area on 31st March 1892.	Equivalent in square Sq.M.	Equivalent in square Acres	No. and date of Notification of addition or transfer.	REMARKS.
...	8,129	12	449		
...	6,616	10	216		
...	1,725	2	445		
...	3,150	4	590		
...	7,251	11	211		
...	1,654	2	3,4		
...	2,388	3	468		
...	972	1	332		
...	1,376	2	96		
...	8,529	5	329		
...	2,064	3	144		
...	4,340	6	500		
...	8,985	14	25		
...	1,217	1	577		
...	7,641	11	601		
...	11,215	17	335		
...	587	0	587		
...	3,407	5	207		
...	880	1	240		
...	1,543	2	263		
...	8,216	12	536		
...	22,551	35	151		
...	1,753	2	473		
...	5,014	7	534		
...	4,200	6	336		
...	12,676	19	516		
...	2,648	4	88		
...	2,252	3	332		
...	1,417	2	137		
...	2,839	4	279		
...	5,604	8	484		
...	2,306	3	386		
...	3,118	4	558		
...	13,433	20	633		
...	6,566	10	466		
...	2,564	4	4		
...	11,857	18	337		
...	12,104	18	584		
...	13,884	21	444		
...	905	1	265		
...	3,614	5	414		
...	2,096	3	176		
...	17,842	27	62		
...	985	1	345		
...	991	1	351		
...	925	1	285		
...	1,923	3	8		
...	9,839	15	239		
...	1,141	1	501		
...	5,334	8	214		
...	3,773	5	573		
...	765	1	125		
...	875	1	235		
...	6,978	10	578		
...	2,291	3	371		
...	5,770	9	10		
...	6,001	9	241		
...	2,85,519	446	79		
...	4,033	6	103		
...	5,575	8	455		
...	3,630	5	430		
...	1,027	1	387		
...	1,547	2	267		
...	2,205	3	285		
...	711	1	71		
...	11,684	18	164		
1,175	4,755	7	275	1,652 of 4th March 1892.	
51	2,056	3	136	8,347 of 4th December 1891.	
103	1,419	2	139	6,744 of 30th September 1891.	
1,483	...	...	...		Entirely washed away by the river.
...	3,685	5	485		
...	5,108	7	628		
...	1,555	2	275		
...	5,849	9	89		
...	4,833	6	493		
...	25,328	39	368		

FORM

FOREST DEPARTMENT, BOMBAY,

Area of Reserved

Divisions.	Civil Districts.	Names of Forests.	Area on 1st April 1891. Acres.	Equivalent in square miles. Sq.M.	Acres	Added during the year. Acres.
Naushahro—*continued.*	Hyderabad ...	Bhour ...	10,539	16	299	...
		Mohbatdero ...	8,045	12	365	...
		Samtia ...	3,390	5	190	...
		Kamaldero ...	1,365	2	85	...
		Bhorti ...	10,790	16	550	...
		Dalipota ...	867	1	227	...
		Khairodero ...	13,073	20	273	...
		Jalia ...	4,192	6	352	...
	Karachi ...	Karampur ...	2,924	4	364	...
		Bagban ...	1,947	3	27	...
		Bhan ...	1,138	1	498	...
		Phaka ...	2,207	3	287	...
		Kalubori ...	748	1	108	...
		Pipri ...	925	1	285	...
		Total Naushahro Division ...	1,40,462	233	342	...
Hyderabad ...	Hyderabad ...	Lakhat ...	6,380	9	620	...
		Nasri ...	1,556	2	276	...
		Mad ...	2,642	4	82	...
		Mehrabpur ...	3,338	5	138	...
		Mari ...	14,758	23	33	...
		Pai ...	5,130	8	10	...
		Koti Jurio ...	2,125	3	205	...
		Rano ...	1,627	2	347	...
		Nurkoti ...	4,061	6	221	...
		Bhanote ...	841	1	201	...
		Khanote ...	8,666	13	346	...
		Khabrani ...	760	1	120	...
		Sekhat ...	2,080	3	160	...
		Jakhri ...	1,926	3	6	...
		Matiari ...	5,354	8	234	...
		Ghali ...	3,041	4	481	...
		Miani ...	6,917	7	437	...
		Kathri ...	756	1	116	...
		Gundi ...	2,150	3	230	...
		Mahamed Khan ...	181	0	181	...
		Jamshoro ...	202	0	19	...
		Shahmakai ...	411	0	411	...
		Keti Mehrani ...	5,523	8	403	...
	Karachi ...	Gidarji ...	855	1	215	...
		Butho ...	7,749	12	69	...
		Manjhand ...	1,539	2	259	...
		Unarpur ...	10,767	16	465	...
		Ghag ...	1,296	2	16	...
		Karokho ...	1,701	2	421	...
		Total Hyderabad Division ...	1,02,354	159	594	...
Jerruck ...	Karachi ...	Viran ...	9,142	14	182	...
		Sonda ...	2,114	3	194	...
		Hilaya ...	2,898	4	338	...
		Lalang ...	5,151	8	31	...
		Shah Lanko ...	1,690	2	410	...
		Garko ...	4,079	6	239	...
		Kacho Shah Lanko ...	313	0	313	...
		,, Ali Ganj ...	715	1	75	...
		,, Bao Purandas ...	6,418	10	18	...
		,, Bijora ...	5,890	9	130	...
		,, Chachh ...	3,362	5	162	...
		Malir ...	24	0	24	...
		Kacho Alibahar ...	3,000	4	440	...
		,, Surjani ...	3,410	5	210	...
		,, Kot Almo ...	2,835	3	415	...
		Penah ...	6,169	9	409	...
		Susati ...	39	0	39	...
		Khirsur ...	1,380	2	100	...
		Hinderani ...	5,511	8	391	...
		Surjani ...	1,364	2	84	...
		Ganj ...	2,228	3	308	...
		Hazari ...	2,483	3	563	...
		Makbulo ...	496	0	496	...
		Laikpur ...	7,406	11	366	...
		Khadi ...	4,500	7	20	...
		Pohatah ...	258	0	258	...
		Mulchand ...	5,454	8	334	...
	Hyderabad ...	Husri ...	420	0	420	...
		Khatro ...	416	0	416	...
		Khathar ...	2,975	4	415	...
		Kaiar ...	952	1	312	...
		Khirdabi ...	290	0	290	...
		Tikhur ...	1,709	2	429	...
		Khokhar ...	1,556	2	276	...
		Bud ka Takar ...	975	1	335	...
		Total Jerruck Division ...	97,117	151	477	...
		Grand Total of the Sind Circle ...	6,34,452	991	212	...

No. 49.

SIND CIRCLE.

Forests, 1891-92.

Excluded or transferred to other heads.	Area on 31st March 1892.			No. and date of Notification of addition or transfer.	REMARKS.
Acres.	Acres.	Equivalent in square miles.			
		Sq M.	Acres		
...	10,589	16	299		
...	8,045	12	365		
...	3,390	5	190		
...	1,365	2	85		
...	10,790	16	550		
...	867	1	227		
...	13,073	20	273		
...	4,192	6	352		
...	2,924	4	364		
...	1,947	3	27		
...	1,138	1	498		
...	2,207	3	287		
...	748	1	108		
...	925	1	285		
2,812	1,46,650	229	90		
...	6,380	9	620		
...	1,556	2	276		
...	2,642	4	82		
...	3,388	5	138		
...	14,753	23	33		
...	5,130	8	10		
...	2,125	3	205		
...	1,627	2	347		
...	4,061	6	221		
...	841	1	201		
...	8,666	13	346		
...	760	1	120		
...	2,080	3	160		
...	1,926	3	6		
...	5,354	8	234		
...	3,041	4	481		
...	4,917	7	437		
...	756	1	116		
...	2,150	3	230		
...	181	0	181		
...	292	0	292		
...	411	0	411		
...	5,523	8	403		
...	855	1	215		
...	7,748	12	68		
...	1,539	2	259		
...	10,705	16	465		
...	1,296	2	16		
...	1,701	2	421		
...	1,02,354	159	594		
...	9,142	14	182		
...	2,114	3	194		
...	2,898	4	338		
...	5,151	8	31		
...	1,690	2	410		
...	4,079	6	239		
...	313	0	313		
...	715	1	75		
...	6,413	10	13		
...	5,890	9	130		
...	3,362	5	162		
...	24	0	24		
...	3,000	4	440		
...	3,410	5	210		
...	2,335	3	415		
...	6,119	9	409		
...	39	0	39		
...	1,380	2	100		
...	5,511	8	391		
...	1,364	2	84		
...	2,228	3	308		
...	2,483	3	503		
...	496	0	496		
...	7,406	11	366		
...	4,500	7	20		
...	258	0	258		
...	5,454	8	334		
...	420	0	420		
...	416	0	416		
...	2,975	4	415		
...	952	1	312		
...	290	0	290		
...	1,709	2	429		
...	1,556	2	276		
...	975	1	335		
...	97,117	151	477		
2,812	6,31,640	986	600		

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

ANNUAL FORM No. 49 A.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—AREA OF PROTECTED FORESTS, 1891-92.

Division.	Civil District.	Name of Forest.	Area on 1st April 1891.			Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1892.			No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.		Acres.	Acres.	Acres.	Equivalent in square miles.			
				M.	A.				M.	A.		
Sukkur	Upper Sind Frontier ...	Macaulay	183	0	183	...	...	183	0	183		
		Dickinson	585	0	585	...	...	585	0	585		
		Total ...	768	1	128	...	...	768	1	128		
Jerruck	Karachi	Kacho Sonda	117	0	117	...	...	117	0	117		
		Total ...	885	1	245	...	...	885	1	245		

Conservator's Office,
Hyderabad, 30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 50.

Forest Department, Bombay, Sind Circle.

Register of breaches of Forest Rules during 1891-92.

Forest Divisions.		Cases pending from 1890-91.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Sukkur	A	1	...	3	5	3	11	12	3	7	3	12	6	19	6
	B	...	...	194	1,276	1	1,471	1,471	1,471	1,484	...	..	1,471	1,484	...
	C	...	...	1	...	.	1	1	...	...	...	...	...	...	...
	Total ...	1	...	198	1,281	4	1,483	1,484	1,474	1,491	3	12	1,477	1,503	6
Naushahro ...	A	3	...	8	1	4	13	16	9	21	4	14	13	35	3
	B	..	...	62	175	...	237	237	237	244	..	...	237	244	...
	C	...	...	...	...	..	...	...	...	...	..	...	...	...	...
	Total ...	3	..	70	176	4	250	253	246	265	4	14	250	279	3
Hyderabad ...	A	2	...	10	...	..	10	12	6	8	4	5	10	13	2
	B	...	...	162	483	..	645	645	645	645	...	...	645	645	
	C	...	7	4	...	...	11	11	...	...	...	..	...		..
	Total ...	2	7	176	483	.	666	668	651	653	4	5	655	658	2
Jerruck	A	...	...	2	...	...	2	2	1	2	1	1	2	3	...
	B	...	...	22	377		399	399	399	400	...	...	399	400	...
	C	...	...	...	...	.	...	...	...	...	...	..	...	...	...
	Total ...	..	...	24	377	...	401	401	400	402	1	1	401	403	...
Grand Total...	A	6	...	23	6	7	36	42	19	38	12	32	31	70	11
	B	...	..	440	2,311	1	2,752	2,752	2,752	2,773			2,752	2,773	...
	C	...	7	5	...	.	12	12	...	..		..	...	...	..

N. B.—**A** means cases taken into Court.
B means cases disposed of under Section 67 of the Indian Forest Act.
C means undetected cases.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

Hyderabad,
30th September 1892.

FORM No. 51.

Forest Department, Sind Circle.

Area of Forest tracts protected from fire during the dry season of 1891, to accompany report 1891-92.

Divisions.	Forest tracts.	Year in which commenced.	Area actually protected up to 15th June 1891.	During dry season, 1892.			Cost during the season.	Remarks.
				Area attempted to be protected.	Failure.	Area actually protected.		
			Acres.	Acres.	Acres.	Acres.		
Sukkur	Mirpur	Not known	46,750	43,194	808	42,386		
	Ghotki		25,855	26,032	230	25,802		
	Sadhuja		71,376	73,009	2,335	70,674		
	Abad		46,703	51,749	20	51,729		
	Sukkur		25,984	25,988	146	25,842		
	Shikarpur	1887-88	23,957	22,957	.....	23,957		
	Jacobabad	1885-86	15,431	15,431	.....	15,431		
	Thul	1885-86	26,927	26,927	.....	26,927		
Naushahro	Bakrani	.....	18,078	18,103	5	18,098		
	Kandiaro	Not known	18,670	17,888	1	17,887		
	Sehwan		495	600	.....	600		
Hyderabad	Rano	Do.	10,620	10,720	130	10,590		
	Unarpur		13,050	13,050	450	12,600		
	Miani		3,833	3,833	.....	3,833		
	Kotri		500	500	.....	500		
Jerruck	Viran	Do.	3,829	3,829	.....	3,829		
	Shahbandar		8,783	8,783	1,407	7,376		
	Mulchand		6,020	6,020	7	6,013		
	Katiar		1,603	1,603	.....	1,603		
	Total	.....	3,68,464	3,71,216	5,539	3,65,677		

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 52.

FOREST DEPARTMENT, SIND CIRCLE.—AREA OF PLANTATIONS, 1891-92.

Divisions.	Names of Plantation.	Area in Acres: On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 31st March 1892.	Receipts of the year.	Charges of the year.	Remarks.
	Regular Plantation.							
Sukkur ..	Aliwahan Garden	20	...	...	20	...	184	
	Rahuja Nursery	10	...	...	10	...	518	
	Shah Plantation	7	...	...	7	...	...	
	Sadhuja do.	27	7	...	34	...	83	
Hyderabad...	Devi-Devi Plantation	13	...	...	13	162	290	
	Bamboo do	13	...	...	13	...	...	
	Miani Bungalow, Mango and Monument Gardens ...	12	...	...	12	465	741	
Jerruck ...	Malir Nursery	24	...	...	24	...	84	
	Sonda do.	5	...	...	5	111	443	
	Total Regular Plantation ...	131	7	...	138	738	2,343	
	Cultural Operations.							
Sukkur ...	Abad	55	640	...	695	...	...	
	Bindi Dhareja	114	640	...	754	...	...	
	Shah	48	20	...	68	...	...	
	Mohro Mari	45	...	...	45	...	...	
	Khia Bindi	22	...	...	22	...	...	
	Kadrapur	...	360	...	360	...	...	
	Rohri	1,018	...	...	1,018	...	...	
	Syadpur	16	...	...	16	...	...	
	Changni	2	...	2	...	...	...	Opened to grazing.
	Saliani	28	...	...	28	...	...	
	Sultanpur	23	...	...	23	...	...	
	Azizpur	20	...	...	20	...	...	
	Ding	308	2	300	10	...	...	Do. do.
	Adilpur	39	...	19	20	...	...	Do. do.
	Raoti	30	...	...	30	...	...	
	Gublo	5	...	...	5	...	...	
	Garhi Habin	...	10	...	10	...	...	
	Lakhi	...	3	...	3	...	...	
	Kote Sultan	...	500	...	500	...	...	
	Andaldal	...	28	...	28	...	...	
	Bagirji	...	3	...	3	...	...	
	Keti Bagirji	...	50	...	50	...	...	
	Total ...	1,773	2,256	321	3,708	...	...	
Naushahro...	Mohbatdero	...	590	...	590	...	...	
	Bhour	874	760	...	1,634	...	...	
	Kamaldero	100	...	...	100	...	...	
	Bhorti	50	...	...	50	...	...	
	Dalipota	125	...	...	125	...	...	
	Karampur	25	...	...	25	...	...	
	Phaka	250	...	...	250	...	...	
	Pipri	267	...	...	267	...	...	
	Baghban	17	...	...	17	...	...	

	Kalubor	20	...	...	20	...	...	
	Bhan	100	...	...	100	...	...	
	Sharifpur	45	...	...	45	...	...	
	Amrote	110	...	...	110	...	...	
	Muso	15	75	...	90	...	...	
	Bahman	30	...	...	30	...	...	
	Keti Ubhuro	3	...	...	3	...	...	
	Gajdero	15	...	...	15	...	...	
	Total ..	2,046	1,425	...	3,471	...	...	
Hyderabad...	Nasri	...	160	...	160	...	...	
	Mari	1,071	625	160	1,536	...	...	160 acres were opened to grazing.
	Nurkot	420	15	...	435	...	...	
	Mad	646	...	...	646	...	...	
	Rano	50	150	...	200	...	...	
	Keti Jurio	160	150	...	310	...	...	
	Mehrabpur	160	320	...	480	...	...	
	Butho	1,635	640	...	2,275	...	...	
	Manjhand	158	...	...	158	...	...	
	Unarpur	1,145	320	...	1,465	...	...	
	Ghagh	...	160	...	160	...	...	
	Khanote	443	160	...	603	...	...	
	Sekhat	...	20	...	20	...	...	
	Matiari and Jakhri	1,040	830	...	1,870	...	...	
	Miani	870	15	...	885	...	...	
	Muhammad Khan	181	...	...	181	...	...	
	Kathri	50	...	...	50	...	...	
	Shah Makai	43	...	...	43	...	...	
	Jamshoro	23	...	...	23	...	...	
	Total ...	8,095	3,565	160	11,500	...	...	
Jerruck ...	Mulchand	277	...	...	277	...	...	
	Khadi	40	...	...	40	...	...	
	Penah	13	...	...	13	...	...	
	Laikpur	147	...	...	147	...	...	
	Viraa	785	...	...	785	...	...	
	Garko	588	...	588	...	...	...	588 acres were opened to grazing.
	Shah Louko	255	11	...	266	...	...	
	Sonda	157	43	...	200	...	...	
	Hilaya	228	...	...	228	...	...	
	Khathar	60	...	...	60	...	...	
	Katiar	24	...	...	24	...	...	
	Bud ka Takur	107	...	...	107	...	...	
	Lalang	22	...	...	22	...	...	
	Total ...	2,703	54	588	2,169	...	...	
	Total Cultural Operations... ...	14,617	7,300	1,069	20,848	...	...	
	Grand Total of Regular and Cultural Operations. .	14,748	7,307	1,069	20,986	...	...	

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deyuty Conservator of Forests, Sind Circle.

FORM No. 54.

FOREST DEPARTMENT, SIND CIRCLE.—OUTTURN, IN CUBIC FEET, OF TIMBER AND FIREWOOD DURING THE YEAR 1891-92 AND AGENCY OF EXPLOITATION.

Divisions.	Timber in the rough logs					Timber in the rough poles					Sawn or squared timber.					Miscellaneous.					Fuel.					Total.
	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government	Purchasers.	Free grant.	Right-holders	Total.	Government.	Purchasers	Free grant.	Right-holders.	Total.	Out-turn.
I —Reserved Forests.																										
Sukkur	15 913	5,497	530		21 940	5 323	433	31		5 787	.		..	.		19,211	28,579	1,775		49,565	54 24 062	23,42 517	337	.	77,66 916	78,44 208
Naushahro	2,593	1.164	344		4 101	4 308	16 212	2 294		22 814				.		16	527	1,910		2,453	30 88,351	3,70 086	270		34.58.707	34,88,075
Hyderabad	1,302	1,694	298		3 294	59 860	4,637	575		65 072	21,769	524		.	22,293		6			6	44.47,121	2 57.034	1,350	..	47 05,505	47,96 170
Jerruck	25,635	471	366		26,472	4 933	8,568	150		13,651						1.750				1.750	19,58,787	25,775		.	19,84,562	20 26 435
Total	45,443	8,826	1 538		55,807	74 424	29,850	3,050		1,07,324	21,769	524			22 293	20,977	29,112	3,685		53,774	1,49,18.321	29 95,412	1,957		1,79 15,690	1,81.54,888
II —Protected Forests.																										
Sukkur	..	232	...	..	232		43			43		.					257			257	10,125	446			10,571	11 103

Hyderabad,
30th September, 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 55.

FOREST DEPARTMENT, SIND CIRCLE—Outturn of minor Forest produce.

Divisions.	Description of produce.	Produce removed or utilised										Remarks.
		By Government agency.		By purchasers.		By free grant.		By right holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
			Rs.		Rs.		Rs.		Rs.		Rs.	
Sukkur	Mango fruit	Contract...	66	...	...	...	...	...	...	Contract...	66	
	Babul seed... ... ...Maunds.	4	3	...	...	...	...	...	...	4	3	
	Babul pods...	...	...	Contract...	424	...	...	...	...	Contract...	424	
	Munj and reed	...	...	Do. ...	1,032	...	...	...	...	Do. ...	1,032	
	Reed grass ... ...Bundles.	...	...	29	2	...	...	...	...	29	2	
	Kanh grass... ... ... Do.	...	...	1,143	72	50	3	...	...	1,193	75	
	Do. ... ...Cartloads.	...	...	100	7	...	...	...	...	100	7	
	Dabh grass... ... ...Maunds.	...	...	4,684	299	...	...	...	...	4,684	299	
	Jháu brushwood ... ...Bundles.	...	...	1,381	89	81	5	...	...	1,462	94	
	Potash	...	...	Contract...	37	...	...	...	...	Contract...	37	
	Compensation for damaging branches of trees	...	...	...	17	...	...	...	...	...	17	
	Grazing fees	...	...	...	17,133	...	...	...	...	...	17,133	
	Total... ...	...	69	...	19,112	...	8	...	...	...	19,189	
Naushahro...	Babul pods...	...	...	Contract...	1,954	...	...	...	...	Contract...	1,954	
	Ber fruit	...	...	Do. ...	27	...	...	...	...	Do. ...	27	
	Sar grass	...	...	Do. ...	721	...	...	...	...	Do. ...	721	
	Do. ... ...Bundles.	...	...	113	8	...	...	...	...	113	8	
	Branches of trees	...	...	...	45	...	...	...	...	...	45	
	Jháu brushwood ... ...Bundles.	...	...	934	56	...	...	...	...	934	56	
	Babul bark ... ...Maunds.	...	...	9	2	...	...	...	...	9	2	
	Babul branches	...	...	...	2	...	...	...	...	...	2	
	Babul seed ... ...Maunds.	11	...	...	...	...	...	...	...	11	21	
	Grazing fees	...	21	...	10,151	...	...	...	...	...	10,151	
	Total... ...	...	21	...	12,966	...	...	...	...	...	12,987	

Hyderabad...	Babul bark... ... ...Maunds.	502	98	75	9	...	...	...	...	577	107
	Tooth-brushes ... ... Do.	...	...	256	116	...	...	...	...	256	116
	Brushwood... ... ...Bundles.	...	...	483	30	...	...	...	...	483	30
	Kanh grass... ... ... Do.	...	...	980	62	157	10	...	..	1,137	72
	Do.	...	...	Contract...	161	...	...	...	...	Contract...	161
	Compensation for damaging trees.	...	...	...	340	...	...	...	...	...	340
	Kinro	...	...	Contract...	4	...	...	...	...	Contract...	4
	Sakur	...	...	Do. ...	20	...	...	...	...	Do. ...	20
	Babul pods...	...	...	Do. ...	8,296	...	...	...	...	Do. ...	8,296
	Mango fruit	...	...	Do. ...	465	...	...	...	...	Do. ...	465
	Lac	...	...	Do. ...	2,372	...	...	...	...	Do. ...	2,372
	Do. ... ...Maunds.	...	...	22	42	...	...	...	...	22	42
	Reed grass ... ...Bundles.	...	...	271	17	...	...	...	...	271	17
	Babul seed... ... ...Maunds.	24	39	...	...	...	...	...	...	24	39
	Grazing fees	...	...	...	16,825	...	...	...	...	...	16,825
	Total... ...	...	137	...	28,759	...	10	...	...	...	28,906
Jerruck	Babul bark... ... ...Maunds.	443	171	...	...	...	...	...	...	443	171
	Jháu brushwood ... ...Bundles.	...	...	1,623	102	20	1	...	...	1,643	103
	Potash ... ...Maunds.	...	...	108	29	...	...	...	...	108	29
	Lac	...	...	Contract...	205	...	...	...	...	Contract...	205
	Fruit	...	...	Do ...	152	...	...	...	...	Do. ...	152
	Babul pods...	...	...	Do. ...	3,893	...	...	...	...	Do. ...	3,893
	Kanh grass... ... ...Bundles.	...	...	20	1	...	...	...	...	20	1
	Reed grass ... ... Do.	...	...	264	17	...	...	...	...	264	17
	Compensation	...	...	...	15	...	...	...	...	...	15
	Grazing fees	...	...	...	14,891	...	...	...	...	...	14,891
	Total... ...	...	171	...	19,305	...	1	...	...	...	19,477

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 56.

FOREST DEPARTMENT, SIND CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1891-92.

	Particulars.	No. or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
	TIMBER.				
	Balance at commencement of the year.				
	Sale Depôts.				
Sukkur Division.	Bahan logs	119	782		
	Bahan Dasas	18	70		
	Bahan pots...	73	...		
	Bahan rafters	10	...		
				220	852
	Forest Depôts.				
	Bahan Dasas	20	...		
	Bahan posts	325	...		
	Bahan rafters	3,636	...		
				3,981	
	Sale Depôts.				
Naushahro Division.	Bahan logs...	8	68		
	Bahan posts	282	...		
	Bahan rafters	7	...		
				297	68
	Forest Depôts.				
	Babul logs	274	1,591		
	Bahan do.	1	3		
	Lai do.	1	2		
	Kandi do.	1	4		
				277	1,600

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
TIMBER.				
Removed by purchasers from Depôts.				
Babul logs and dasas	2,479	28,215		
Bahan logs and dasas	1,643	9,923		
Tali logs	49	355		
Babul bolsters	329	1,574		
Babul cart axles	438	...		
Babul sleepers	1,106	...		
Babul posts	3,273	...		
Bahan posts	12,370	...		
Jhau do.	3,600	...		
Babul rafters	967	...		
Bahan do.	1,56,128	...		
Jhau do.	9,215	...		
Tali pieces	29	...		
Tali posts	14	...		
Babul pieces	11	...		
			1,91,651	40,067
Sold Locally.				
Babul logs and dasas	1,554	8,341		
Bahan logs	124	653		
Babul sleepers	2,526	...		
Babul posts	354	...		

	Sale Depôts.				
Hyderabad Division.	Babul logs ...	7	65		
	Babul log ...	1	...		
	Bahan logs ...	1	7		
	Bahan dasas	275	...		
	Bahan posts	4,075	...		
	Bhan rafters	9,600	...		
	Jhau do.	800	...		
	Babul do.	29	...		
	Babul outer slabs	17	...		
	Babul planks	1	...		
	Jhau posts ...	100	...		
	Babul bolsters	8	38	14,914	110
	Forest Depôts.				
	Babul sleepers	16	...		
	Babul rafters	1,800	...		
	Babul pieces	7	...	1,823	...
	Sale Depôts.				
Jerruck. Division.	Babul logs	2	22	2	22
	Forests Depôts.				
	Babul logs ...	17	34	17	34
	Total balance ...	...	...	21,531	2,686

Bahan posts	50	...		
Bahan rafters	308	...		
Jhau rafters	451	...		
Babul pieces	313	...		
Babul outer slabs	26	...	5,706	8,294
USED BY DEPARTMENT.				
Sale Depôts.				
Bahan logs	1	4		
Bahan rafters	100	...	101	4
Forest Depôts.				
Babul outer slabs	12	...	12	...
Transferred to Sale Depôts.				
Bahan dasas	20	...		
Bahan posts	325	...		
Bahan rafters	2,624	...		
Babul sleepers	10	...		
Babul rafters	1,594	...	4,573	...

Received from Forests in Sale Depôts.				
Babul logs and dasas	2,727	29,185		
Bahan do. do.	1,655	11,206		
Tali do.	453	2,799		
Babul bolsters	321	1,536		
Babul cart axles	621	...		
Babul sleepers	1,170	...		
Babul posts	3,557	...		
Bahan do.	10,994	...		
Jhau do.	5,200	...		
Babul rafters	4,094	...		
Bahan do.	1,79,216	...		
Jhau do.	31,215	...		
Tali pieces	29	...		
Tali posts	66	...		
Babul pieces	11	...	2,41,929	44,726
Received in Forest Depôts.				
Babul logs and dasas	1,325	7,145		
Bahan logs	124	653		
Babul sleepers	2,611	...		
Babul posts	354	...		
Bahan do.	950	...		
Babul rafters	5,808	...		
Jhau do.	451	...		

BALANCE AT CLOSE OF THE YEAR.						
Sukkur Division.	*Sale Depôts.*					
	Babul logs and dasas	235	695			
	Bahan logs and dasas	425	2,150			
	Tali logs	404	2,444			
	Tali posts	52	...			
	Babul do.	284	...			
	Bhan rafters	13,505	...			
	Bhan posts	1,004	...			
	Babul carts axles	183	...	16,092	5,289	
	Forest Depôts.					
		900	...			
	Bhan posts	6,512	...	7,412	...	
	Bhan rafters					
Naushahro Division.	*Sale Depôts.*					
	Bahan logs	6	49			
	Bahan posts	2	...	8	49	
	Forest Depôts.					
	Babul logs	43	391			
	Bahan do.	1	3			
	Lai log	1	2			
	Kandi do.	1	4	46	400	
Division.	*Sale Depôts.*					
	Babul logs	7	65			
	Babul log	1	...			
	Bahan logs	1	7			
	Bhan posts	2,048	...			

Babul pieces	313	...		
Babul outer slabs	38	...	11,974	7,798
Total Timber ..	...	...	2,75,434	55,210

Hyderabad	Bhan rafters	10,100	...			
	Jhau posts	1,700	...			
	Babul outer slabs	17	...			
	Babul plank	1	...			
	Babul rafters...	3,756	...			
	Jhau do.	22,800	...			
	Babul sleepers	64	...	49,495	72	
	Forest Depôts.					
	Babul sleepers	91	...			
	Babul pieces	7	...			
	Babul rafters...	206	...	304	...	
	Sale Depôts.					
Jerruck Division.	Babul logs	15	297	15	297	
	Forest Depôts.					
	Babul logs	19	38	19	38	
Total Timber ...		...	...	2,75,434	-55,210	

FIREWOOD AND CHARCOAL.

Balance at commencement of the Year.

Sukkur Division	*Sale Depôts.*				
	Firewood	Mds.	29,318	...	
	Locomotive fuel	C. ft		26,990	29 318 26,990
	Forest Depôts.				
	Firewood	Mds.	10,076	...	
	Locomotive fuel	C. ft.	...	15,937	10,076 15,937
Naushahro Division.	*Sale Depôts.*				
	Firewood	Mds.	2,400	...	2,40 ...
	Forest Depôts.				
	Firewood	Mds.	5,628	...	
	Locomotive fuel	C ft.	...	1,55,400	
	Babul seed	Mds	8	...	5,636 1,55,400
Hyderabad Division.	*Sale Depôts.*				
	Firewood	Mds.	27,411	...	
	Charcoal	„	170	...	
	Babul bark	„	2	...	27,583 ...
	Forest Depôts.				
	Firewood	Mds.	9,221	...	
	Locomotive fuel	C. ft	...	95,730	
	Charcoal	Mds.	200	...	9,421 95,730

FIREWOOD AND CHARCOAL.

Removed by purchasers from Sale Depôts.					
Firewood	Mds.	3,51,130	...		
Locomotive fuel	C. ft.	...	12,91,425		
Charcoal	Mds.	4,385	...		
Babul bark	„	795	..		
Babul seed	„	16	...	3,56.326	12,91,425
Sold Locally.					
Firewood	Mds	1 14,519	...		
Locomotive fuel	C. ft.	..	98.16,227		
Charcoal	Mds.	52,642	..		
Babul seed	„	90	...	1,67,251	98,16,227
Transferred to other Sale Depôts.					
Babul bark	Mds.	293	...		
Charcoal	„	1,375	...	1,668	...
Written off. *Forest Depôts.*					
Firewood	Mds.	2,037	...		
Locomotive fuel	C ft.	...	18,095		
Babul seed	Mds	48	...	2,085	1,895
Transferred to Sale Depôts.					
Firewood	Mds.	6,462	...		
Locomotive fuel	C ft.	...	22,910		
Charcoal	Mds.	200	...	6,662	22,910
Used by Department.					
Babul seed	Mds.	28	...		
Khair seed	„	2	...		

	Sale Depôts.				
Jerruck Division	Firewood ... . Mds	1,000	...		
	Charcoal ... . "	50	...	1,050	...
	Forest Depôts.				
	Firewood .. .. Mds	33,100	...		
	Locomotive fuel ... ... C ft	...	85,980		
	Charcoal . ... Mds	1,033	..		
	Babul seed ... ... "	48	...	34,181	85,980
	Total Balance..			1,19,665	3,80,037
	Received from Forest in Sale Depôts.				
	Firewood ... ... Mds	3,40,710	..		
	Locomotive fuel ... ... C ft.	..	12,76,606		
	Charcoal ... ... Mds	4,598	...		
	Babul bark ... ... "	793	...		
	Babul seed ... ... "	16	...	3,46,117	12,76,606
	Received in Forest Depôts.				
	Firewood .. .. Mds.	1,19,891	..		
	Locomotive fuel ... ... C ft	..	97,14,116		
	Charcoal . .. . Mds	53,106	...		
	Babul seed ... ... "	119	...		
	Khair seed .. .. "	2	...		
	Jhau brushwood ... .Bundles.	4	...		
	Sar grass .. .. "	7	...	1,73,129	97,14,116
	Received by transfer in Sale Depôts.				
	Babul bark .. .. "	293	...		
	Charcoal ... ... "	1,375	...	1,668	...
	Total	...	...	6,40,579	1,13,70,759

	Jhau brushwood ... .. Bundles.	4	...		
	Sar grass ... ... "	7	.	41	...
	BALANCE AT CLOSE OF THE YEAR				
	Sale Depôts				
Sukkur Division	Firewood ... ... Mds.	32,131	...		
	Locomotive fuel .. .. C ft	...	10 921	32,131	10,921
	Forest Depôts.				
	Firewood ... ... Mds.	6,706	...		
	Locomotive fuel .. .. C ft	...	3,202	6,706	3,202
	Sale Depôts.				
Naushahro Division	Firewood ... ... Mds	300	...	300	...
	Forest Depôts.				
	Firewood .. ... Mds.	5,539	...		
	Locomotive fuel ... . C ft.	...	1,00,600		
	Charcoal ... ... Mds	...	..		
	Babul seed ... ... "	9	..	5,548	1,00,600
	Sale Depôts.				
Hyderabad Division.	Firewood ... .. Mds.	16,028	...		
	Locomotive fuel .. ... C ft	...	1,250		
	Charcoal ... .. Mds	420	...	16,448	1,250
	Forest Depôts.				
	Firewood ... ... Mds	28,291	...		
	Locomotive fuel ... ... C ft.	...	19,303	28,291	19,303
	Sale Depôts.				
Jerruck Division.	Firewood ... ... Mds	1,250	...		
	Charcoal ... ... "	13	...	1,263	...
	Forest Depôts.				
	Firewood ... ... Mds	14,362	...		
	Locomotive fuel .. ... C ft.	.	1,03,026		
	Charcoal ... ... Mds.	1,497		15,859	1,03,026
	Total ..	...	...	6,40,579	1,13,70,759

Hyderabad,
20th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 57.

Forest Department, Sind Circle.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1891-92.

	Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.
Sukkur Division.	*Sale Depôts.*								
	Bahan logs and dasas ...	137	852	426	425	2,150	1,075	...	...
	Babul logs and dasas ...	...	...	...	235	695	347	...	...
	Tali logs and dasas	...	...	...	404	2,444	1,222	...	...
	Bahan posts	73	...	23	1,004	...	321	...	...
	Babul posts	...	...	...	284	...	91	...	...
	Tali posts	...	...	...	52	...	17	...	...
	Bahan rafters	10	...	1	13,505	...	1,956	...	...
	Babul cart axles	...	...	...	183	...	68	...	...
	Total	220	852	450	16,092	5,289	5,097	4,647	...
	Forest Depôts.								
	Bhan posts.....	325	...	81	900	...	225	...	...
	Bhan rafters	3,636	...	436	6,512	...	781	...	...
	Bahan dasas	20	...	15	...	...	...	...	...
	Total	3,981	...	532	7,412	...	1,006	474	...
	Sale Depôts.								
	Firewood ..... Mds.	29,318	...	5,277	32,131	...	5,784	...	...
	Locomotive fuel... C. ft.	...	26,990	1,045	...	10,921	421	...	...
	Total	29,318	26,990	6,322	32,131	10,921	6,205	...	117
	Forest Depôts.								
	Firewood ..... Mds.	10,076	...	1,209	6,706	...	805	...	...
	Locomotive fuel... C. ft.	...	15,937	319	...	3,202	64	...	...
	Total.....	10,076	15,937	1,528	6,706	3,202	869	...	659
Naushahro Division.	*Sale Depôts.*								
	Bahan logs.....	8	68	34	6	49	25	...	...
	Bahan posts	282	...	45	2	...	1	...	...
	Bahan rafters	7	...	1	...	...	...	...	...
	Total	297	68	80	8	49	26	...	54
	Forest Depôts.								
	Babul logs	274	1,591	274	43	391	71	...	...
	Bahan logs.....	1	3	1	1	3	1	...	...
	Jhán logs	1	2	1	1	2	1	...	...
	Kandi logs	1	4	1	1	4	1	...	...
	Total	277	1,600	277	46	400	74	...	203
	Sale Depôts.								
	Firewood ..... Mds.	2,400	...	408	300	...	72	...	336
	Forest Depôts.								
	Firewood ..... Mds.	5,628	...	995	5,539	...	977	...	...
	Locomotive fuel... C. ft.	...	1,55,400	5,528	...	1,00,600	3,521	...	...
	Babul seed..... Mds.	8	...	8	9	...	9	...	...
	Total	5,636	1,55,400	6,531	5,548	1,00,600	4,507	...	2,024

	Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.
Hyderabad Division.	*Sale Depôts.*								
	Babul logs	7	65	32	7	65	32	...	...
	Babul logs	1	...	1	1	...	1	...	...
	Bahan posts	4,075	...	1,630	2,048	...	410	...	...
	Bahan rafters	9,600	...	1,056	19,100	...	1,910	...	...
	Bahan dasas	275	...	275	...	...	...	...	...
	Jháu posts	100	...	8	1,700	...	85	...	...
	Babul slabs	17	...	4	17	...	4	...	...
	Babul planks	1	...	2	1	...	2	...	...
	Babul rafters	29	...	11	3,756	...	751	...	...
	Babul bolsters	8	38	16	...	...	...	...	...
	Jháu rafters	800	...	42	22,800	...	912	...	...
	Babul sleepers	...	...	...	64	...	64	...	...
	Bahan logs	1	7	3	1	7	3	...	...
	Total	14,914	110	3,080	49,495	72	4,174	1,094	...
	Forest Depôts.								
	Babul sleepers	16	...	32	91	...	182	...	...
	Babul pieces	7	...	1	7	...	1	...	...
	Babul rafters	1,800	...	360	206	...	31	...	...
	Total	1,823	...	393	304	...	214	...	179
	Sale Depôts.								
	Firewood ... Mds.	27,411	...	4,934	16,028	...	2,885	...	...
	Locomotive fuel... C. ft.	...	...	...	...	1,250	52	...	...
	Charcoal ... Mds.	170	...	95	420	...	235	...	...
	Babul bark	2	...	1	...	...	...	...	...
	Total	27,583	...	5,030	16,448	1,250	3,172	...	1,858
	Forest Depôts.								
	Firewood ... Mds.	9,221	...	922	28,291	...	2,829	...	...
	Locomotive fuel... C. ft.	...	95,730	2,202	...	19,303	444	...	...
	Charcoal ... Mds.	200	...	70	...	...	...	...	...
	Total	9,421	95,730	3,194	28,291	19,303	3,273	79	...
Jerruck Division.	*Sale Depôts.*								
	Babul logs	2	22	33	15	297	446	413	...
	Forest Depôts.								
	Babul logs	17	34	2	19	38	5	3	...
	Sale Depôts.								
	Firewood ... Mds.	1,000	...	180	1,250	...	225	...	...
	Charcoal ... Mds.	50	...	50	13	...	13	...	...
	Total	1,050	...	230	1,263	...	238	8	...
	Forest Depôts.								
	Firewood ... Mds.	33,100	...	3,972	14,362	...	1,723	...	...
	Locomotive fuel... C. ft.	...	85,980	1,846	...	1,03,026	2,176	...	...
	Charcoal ... Mds.	1,033	...	372	1,497	...	539	...	...
	Babul seed	48	...	24	...	...	...	...	...
	Total	34,181	85,980	6,204	15,859	1,03,026	4,438	...	1,766

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 58.

Forest Department, Bombay, Sind Circle.

Summary of Revenue and Expenditure of the different Divisions during the year 1891-92.

Budget Heads.	Direction.	Hyderabad Division.	Jerruck Division.	Naushahro Division.	Sukkur Division.	Total for 1891-92.
REVENUE.						
I. Timber and other Produce removed from the Forests by Government Agency—						
a. Timber ...	...	26,882 4 7	43,601 13 3	1,263 5 1	16,449 12 11	88,196 3 10
b. Firewood and charcoal ...	...	1,45,685 4 6	81,734 7 7	1,11,405 5 3	1,93,914 14 9	5,32,740 0 1
c. Bamboos ...	...	.		.	...	.
d. Sandalwood ...	...					
e. Grass and other minor produce ...	...	136 12 0	171 3 0	20 12 0	69 2 3	397 13 9
II. Timber and other Produce removed from the Forests by Consumers or Purchasers—						
a. Timber ...	...	907 10 7	629 3 7	963 1 6	5,972 4 10	8,472 4 6
b. Firewood and charcoal ...	...	3,648 3 0	329 8 6	3,712 10 1	22,656 9 11	30,346 15 6
c. Bamboos...	...					
d. Grazing and fodder grass ...	...	16,825 1 6	14,899 15 0	10,151 4 6	17,133 6 0	59,000 11 0
e. Other minor produce ...	...	11,934 0 10	4,414 6 2	2,815 1 0	1,978 14 3	21,142 6 3
III. Drift and Waif wood and confiscated Forest Produce ...	...	12 0 0	1 8 0	47 0 0	1 12 0	62 4 0
IV. Revenue from Forests not managed by Government—						
a. Duty on foreign timber and other forest produce.	...	...	...	...	...	...
b. Revenue from shared and private forests ..	...	...	...	...	...	...
V. Miscellaneous—						
a. Fines and forfeitures...	...	...	...	...	...	...
b. Refunds ...	32 0 2	6 14 1	...	...		38 14 3
c. Other sources ...	...	4,345 6 9	3,158 14 2	13,770 8 3	12,540 13 4	33,812 10 6
Total Revenue...	32 0 2	2,10,383 9 10	1,48,928 15 9	1,44,147 15 8	2,70,717 10 3	7,74,210 8 8
EXPENDITURE.						
A—Conservancy and Works.						
I. Timber and other Produce removed from the Forests by Government Agency—						
a. Timber ..	...	9,734 7 4	29,431 15 1	274 8 2	5,570 14 9	45,011 13 4
b. Firewood and charcoal ...	...	88,693 14 9	52,908 8 11	70,103 5 7	1,31,107 0 2	3,51,802 3 5
c. Bamboos...	..	...	...		...	...
d. Sandalwood ...	...	.		..	...	...
e. Grass and other minor produce ...	...	3 12 0	137 8 2	58 12 0	0 14 6	200 14 8
II. Timber and other Produce removed from the Forests by Consumers or Purchasers .	...	...	73 3 11	177 15 8	...	251 3 7
III. Drift and Waif wood and confiscated Forest Produce ..	...	...	...	...	0 14 0	0 14 0
IV. Revenue from Forests not managed by Government—						
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...
b. Revenue from shared and private forests ...	...	...	...	...	...	...
V. Rent of leased Forests and Payments to shareholders in Forests managed by Government—						
VI. Live Stock, Stores, Tools and Plant—						
a. Purchase of cattle ...	...	97 0 0	49 5 0	...	110 0 0	256 5 0
b. Feed and keep of cattle ...	...	4 12 9	0 14 0	..	77 14 0	83 8 9
c. Purchase of stores, tools and plant ...	1 12 0	528 0 3	115 5 0	93 6 0	339 1 0	1,082 8 3
VII. Communications and Buildings—						
a. Roads and bridges ...	...	...	138 0 3	...	.	138 0 3
b. Buildings ...	...	91 9 1	31 0 0	77 10 6	110 0 0	310 9 7
c. Other works ...	...	...	...	...	2 2 0	2 2 0
VIII.—Demarcation, Improvement, and Extension of Forests—						
a. Demarcation ...	...	...	...	...	...	...
b. Compensation for land and rights..	...					
c. Surveys and working plans .	...			..	..	...
d. Sowing and planting...	...	937 7 0	726 7 7	611 7 10	765 3 6	3,040 9 11
e. Protection from fire ...	...	1,031 6 7	466 7 11	7 2 0	1,712 12 10	3,217 13 4
f. Other works ...	...	..	65 4 0	...	...	65 4 0
	...	855 7 8	439 12 9	445 5 9	7 8 0	1,748 2 2
IX. Miscellaneous—						
a. Refunds...	...	...	...	...	...	...
b. Law charges ...	...		...			
c. Other charges ...	0 7 0	687 15 8	494 0 0	647 5 0	1,348 8 6	3,178 4 8
Total A. Conservancy and Works ...	2 3 6	1,02,665 13 1	85,068 2 7	81,500 14 6	1,41,153 3 3	4,10,390 4 11
B—Establishments.						
I. Salaries—						
a. Conservators ...	12,000 0 0	...	...	...	...	12,000 0 0
b. Superior Officers ...	...	2,400 0 0	2,400 0 0	1,800 0 0	7,110 0 3	13,710 0 3
c. Subordinate Forest and Depot Establishments..	...	9,049 5 11	6,163 5 11	7,087 4 10	15,351 0 4	37,651 1 0
d. Office Establishments ..	3,517 10 1	1,383 9 9	1,251 0 0	1,290 0 0	1,745 9 9	9,193 13 7
e. Deputation and Special Allowances ...	160 0 0	...	...	...	...	169 0 0
II. Travelling Allowances—						
a. Conservators ...	2,400 0 0	...	...	...	...	2,400 0 0
b. Superior Officers ...	...	1,200 0 0	1,200 0 0	1,235 15 8	1,570 9 7	5,206 9 3
c. Subordinate Forest and Depot Establishments	...	827 12 6	567 13 3	675 11 5	1,174 8 9	3,245 13 11
d. Office Establishments ...	1,153 8 10	485 15 3	433 11 6	423 5 11	728 13 1	3,225 6 7
III. Contingencies—						
a. Stationery ...	7 14 8	73 6 0	68 15 9	139 4 11	216 3 5	505 12 9
b. Carriage of Tents and Records ...	257 14 8	126 7 0	127 2 9	116 10 1	131 9 1	759 11 7
c. Rents, Rates and Taxes ..	300 0 0	240 0 0	254 8 0	240 0 0	123 0 0	1,157 8 0
d. Pay of Police Guards. .	..	.				
e. Official Postage ..	130 9 6	152 0 0	131 0 0	288 1 0	501 11 6	1,203 0 0
f. Sundries .	281 11 2	176 10 3	138 6 9	131 0 10	389 14 3	1,117 11 3
Payments to Officers of other Provinces ...	..		.	..	..	..
Total B. Establishments ..	20,218 4 11	16,115 2 8	12,735 15 11	13,433 6 8	29,013 0 0	91,545 14 2
Grand Total of Expenditure	20,220 8 5	1,18,780 15 9	97,804 2 6	94,934 5 2	1,70,196 3 3	5,01,936 3 1

No. F. / 12540

Forwarded to the Conservator of Forests, Sind Circle, under Section 238 of the Forest Department Code.

Bombay, Accountant General's Office,
Dated 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—ACCOUNT CURRENT FOR THE YEAR 1891-92.

	Rs. a. p.	Rs. a. p.
To opening Balance	...	90 2 4
VIII—Assessed Taxes—Income Tax—		
Deductions by Government from Salaries and Pensions	...	845 7 5
IX—Forest (as per summary)	...	7,74,210 3 8
Revenue Deposits, (Forest)	...	1,964 0 0
Cheques and Bills, (Departmental Cheques), Forest	...	4,94,326 1 11
Advances Recoverable—		
Forest Advances	1,29,519 0 3	...
Objection Book Advances	233 5 4	1,29,752 5 7
Cash recoveries	...	2,000 8 8
Forest Remittances—		
Remittances to Treasuries	0 4 0	...
Inter-Divisional Transfers	13,799 12 7	...
Inter-Departmental Transfers	24 0 0	13,824 0 6
Account between Bombay and Public Works Department, Bombay—		
IV. Payments into Treasuries by Civil Officers on account of Public Works Department	...	193 0 6
Total Rs.	...	14,17,235 13 8

	Rs. a. p.	Rs. a. p.
1. Refunds and Drawbacks—Refunds—		
Divided Heads, Forest	...	79 5 9
11. Forest (as per summary)	...	5,01,936 3 1
19. Law and Justice—		
Jails, District Jails, Contingencies, Miscellaneous Office expenses ..	...	494 4 11
Revenue Deposits (Forests)	...	1,978 13 0
Cheques and Bills (Forests Cheque cancelled)	...	79 12 11
Advances Recoverable—		
Forest advances	1,20,400 9 5	...
Objection Book Advances	500 0 0	1,20,900 9 5
Cash Recoveries	...	2,000 8 8
Forest Remittances—		
Remittances to Treasuries	3,18,158 8 7	...
Inter-Divisional Transfers	13,590 8 7	..
Inter-Departmental Transfers	..	3,31,749 1 2
Account between Bombay and Military Bengal Western Circle—		
IV. Items adjustable by Military Miscellaneous	4,315 7 8	4,315 7 8
Accounts Current—		
Account between Bombay and Military, Bombay—		
IV. Items adjustable by Military Miscellaneous	50,964 10 10	50,964 10 10
Account between Bombay and P. W. D., Bombay—(Ordinary Branches)—		
IV.—Items adjustable by P. W. D.	6,094 14 5	6,094 14 5
Account between Bombay and P. W. D., (Railway Branches) N. W. Railway—		
IV. Items adjustable by P. W. D.	3,93,501 4 10	3,93,501 4 10
Do. Do. Hyderabad Umarkot Railway ..	3,057 0 1	3,057 0 1
Closing Balances	...	88 13 0
Total Rs..	...	14,17,235 13 8

No. $\frac{F.}{12541.}$

Forwarded to the Conservator of Forests, Sind Circle, under Section 238 of the Forest Department Code.

Accountant General's Office,
Bombay, 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

FORM No. 60.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE—REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1891-92.

Divisions.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during the year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Sukkur	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	.....	16,494 3 1	16,494 3 1	16,449 12 11	44 6 2	
	(b) Firewood and charcoal	253 0 0	2,00,816 15 1	2,01,069 15 1	1,93,914 14 9	7,155 0 4	
	(e) Grass and other minor produce	.....	69 2 3	69 2 3	69 2 3	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	.....	5,972 4 10	5,972 4 10	5,972 4 10	.....	
	(b) Firewood and charcoal	.....	22,656 9 11	22,656 9 11	22,656 9 11	.....	
	(d) Grazing and fodder grass	.....	17,133 6 0	17,133 6 0	17,133 6 0	.....	
	(e) Other minor produce	.....	1,978 14 3	1,978 14 3	1,978 14 3	.....	
	III.—Confiscated, drift and waif wood	.....	1 12 0	1 12 0	1 12 0	.....	
	Total...	253 0 0	2,65,123 3 5	2,65,376 3 5	2,58,176 12 11	7,199 6 6	
Naushahro	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	.....	1,262 5 1	1,262 5 1	1,262 5 1	.....	
	(b) Firewood and charcoal	.....	1,11,405 5 3	1,11,405 5 3	1,11,405 5 3	.....	
	(e) Grass and other minor produce	.....	20 12 0	20 12 0	20 12 0	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	.....	963 1 6	963 1 6	963 1 6	.....	
	(b) Firewood and charcoal	.....	3,712 10 1	3,712 10 1	3,712 10 1	.....	
	(d) Grazing and fodder grass	.....	10,151 4 6	10,151 4 6	10,151 4 6	.....	
	(e) Other minor produce	.....	2,815 1 0	2,815 1 0	2,815 1 0	.....	
	III.—Confiscated, drift and waif wood	.....	47 0 0	47 0 0	47 0 0	.....	
	Total.	.....	1,30,377 7 5	1,30,377 7 5	1,30,377 7 5	.....	

Hyderabad	I.—Timber and other produce removed from the forests by Government agency—					
	(a) Timber	275 0 0	26,882 4 7	27,157 4 7	26,882 4 7	275 0 0
	(b) Firewood and charcoal	1,128 0 3	1,46,447 8 11	1,47,575 9 4	1,45,685 4 6	1,890 4 10
	(e) Grass and other minor produce	.....	136 12 0	136 12 0	136 12 0	.....
	II.—Timber and other produce removed from the forests by consumers or purchasers—					
	(a) Timber	.....	907 10 7	907 10 7	907 10 7	.....
	(b) Firewood and charcoal	.....	3,648 3 0	3,648 3 0	3,648 3 0	.....
	(d) Grazing and fodder grass	.....	16,825 1 6	16,825 1 6	16,825 1 6	.....
	(e) Other minor produce	.....	11,934 0 10	11,934 0 10	11,934 0 10	.....
	III.—Confiscated, drift and waif wood	.....	12 0 0	12 0 0	12 0 0	.....
	Total..	1,403 0 8	2,06,793 9 5	2,08,196 9 10	2,06,031 5 0	2,165 4 10
Jerruck ...	I.—Timber and other produce removed from the forests by Government agency—					
	(a) Timber	.....	43,601 13 3	43,601 13 3	43,601 13 3	.....
	(b) Firewood and charcoal	255 12 0	81,495 11 7	81,751 7 7	81,734 7 7	17 0 0
	(e) Grass and other minor produce	.....	171 3 6	171 3 6	171 3 6	.....
	II.—Timber and other produce removed from the forests by consumers or purchasers—					
	(a) Timber	32 15 3	596 4 4	629 3 7	629 3 7	.....
	(b) Firewood and charcoal	.....	329 8 6	329 8 6	329 8 6	.....
	(d) Grazing and fodder grass	3 4 0	14,890 15 0	14,894 3 0	14,890 15 0	3 4 0
	(e) Other minor produce	.....	4,414 6 2	4,412 6 2	4,414 6 2	.....
	III.—Confiscated, drift and waif wood	.....	1 8 0	1 8 0	1 8 0	.....
	Total..	291 15 3	1,45,501 6 4	1,45,793 5 7	1,45,773 1 7	20 4 0
Total Sind Circle.	I.—Timber and other produce removed from the forests by Government agency—					
	(a) Timber	275 0 0	88,240 10 0	88,515 10 0	88,196 3 10	319 6 2
	(b) Firewood and charcoal	1,036 12 5	5,40,165 8 10	5,41,802 5 3	5,32,740 0 1	9,062 5 2
	(e) Grass and other minor produce	.....	397 13 9	397 13 9	397 13 9	.....
	II.—Timber and other produce removed from the forests by consumers or purchasers—					
	(a) Timber	32 15 3	8,439 5 3	8,472 4 6	8,472 4 6	.....
	(b) Firewood and charcoal	.....	30,346 15 6	30,346 15 6	30,346 15 6	.....
	(d) Grazing and fodder grass	3 4 0	59,000 11 0	59,003 15 0	59,000 11 0	3 4 0
	(e) Other minor produce	.....	21,142 6 3	21,142 6 3	21,142 6 3	.....
	III.—Confiscated, drift and waif wood	.....	62 4 0	62 4 0	62 4 0	.....
	Grand Total...	1,947 15 8	7,47,795 10 7	7,49,743 10 3	7,40,358 10 11	9,384 15 4

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 61.

Forest Department, Bombay, Sind Circle.

Outstandings and Liabilities on account of Contractors and Disbursers for 1891-92.

Divisions.	Department Debtor.			Department Creditor.			Balance due		Remarks.
	At commencement of year 1891-92.	Recoveries in cash and value of supplies and work done during the year 1891-92.	At close of year 1891-92.	At commencement of year 1891-92.	Payments made during the year 1891-92.	At close of year 1891-92.	To Department (outstandings.)	By Department (Liabilities.)	
Contractors.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Hyderabad	...	14,145 12 2	14,145 12 2	.	14,145 12 2	14,145 12 2	...	...	
Jerruck	...	27,210 9 5	27,210 9 5	12,048 0 0	17,962 9 5	30,010 9 5	2,800 0 0	...	
Naushahro	...	8,144 2 8	8,144 2 8	...	8,144 2 8	8,144 2 8	...	...	
Sukkur	...	3,733 5 4	3,733 5 4	...	3,733 5 4	3,733 5 4	...	...	
Total Contractors...	...	53,233 13 7	53,233 13 7	12,048 0 0	43,985 13 7	56,033 13 7	2,800 0 0	...	
Disbursers.									
Hyderabad	...	32,821 11 2	32,821 11 2	2,030 3 5	32,454 2 0	34,484 5 5	1,662 10 3	...	
Jerruck	...	18,645 0 5	18,645 0 5	3,273 9 2	19,719 11 2	22,993 4 4	4,348 3 11	...	
Naushahro	...	11,067 9 6	11,067 9 6	690 6 10	10,503 6 8	11,193 13 6	126 4 0	...	
Sukkur	...	13,780 13 7	13,780 13 7	899 4 3	13,737 8 0	14,636 12 3	855 14 8	...	
Total Disbursers...	...	76,315 2 8	76,315 2 8	6,893 7 8	76,414 11 10	83,308 3 6	6,993 0 10	...	
Grand Total...	...	1,29,549 0 3	1,29,549 0 3	18,941 7 8	1,20,400 9 5	1,39,342 1 1	9,793 0 10	...	

No. $\frac{\text{F.}}{12862.}$

Forwarded to the Conservator of Forests, Sind Circle, under Section 238 of the Forest Department Code.

Accountant General's Office,
Bombay, 6th August 1892.

A. T. COX,
Accountant General, Bombay.

FORM No. 62.

Forest Department, Sind Circle.

Financial results of the year 1891-92.

Divisions.	Timber and other produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Sukkur	2,10,434	1,49,166	60,294	12,526	15,274	2,70,728	1,77,266	
Naushahro	1,12,688	85,459	31,466	6,153	7,087	1,44,154	98,699	
Hyderabad	1,72,704	1,06,210	37,689	7,464	10,602	2,10,393	1,24,276	
Jerruck	1,25,507	88,313	23,428	5,836	7,546	1,48,935	1,01,695	
Total... ...	6,21,333	4,29,448	1,52,877	31,979	40,509	7,74,210	5,01,936	

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

Statement showing the progress of Forest Demarcation and Settlement Works in the Sind Circle for 1891-92.

Class of Forest.	At the commencement of the year. Area under Section 34 in which private rights have not been enquired into, settled and recorded.	Area settled during the year under		Area of reserved Forests alienated under Section 26.	Area of protected Forests disforested under Government orders.	At the end of the year. Areas under Section 34 in which private rights have not been enquired into, settled and recorded.
		Chapter II of the Act.	Chapter IV of the Act.			
	Square miles.	Square miles.	Square miles.	Square miles.	Square miles.	Square miles.
Reserved Forests	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.
Protected Forests... ...						

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

No. 48 of 1893.

Revenue Department.

Commissioner's Office,
Camp Jacobabad, 8th January 1893.

Submitted to Government. The Commissioner much regrets the delay in submission, principally due to printing.

2. The area of reserved forest in Sind is approximately 6,16,263 acres, but of this only 3,10,260 acres, or a little more than one-half are reported to be really productive. The remainder consists of inland reserves, which have perished owing to the cutting off of the water-supply, and of new alluvial tracts which have not yet begun to be productive. The necessity for increasing the real forest area in order to meet increasing demands has already been brought to the notice of Government, and Mr. Barrow has been appointed Forest Settlement Officer under Government Resolution, No. 8431 of the 27th October 1892. When his work is completed, a new calculation of the actual forest areas will be made.

3. The question of the location of the new reserves which must be acquired is one which can only be decided in one way. The spontaneous growth of forest can now only take place in the area between the protective embankments on each side of the river, to which the inundation is confined, and inland forests can only be maintained by artificial irrigation, the cost of which would in most cases be prohibitive. For this reason the Commissioner was compelled reluctantly to abandon the idea of establishing fresh inland reserves, and accepted the conclusion that for any considerable extension of the area of productive forest we must look to the alluvial tracts along the banks of the river. The instructions quoted in para. 8 of the Deputy Conservator's report were accordingly issued, and the Commissioner believes that they will result in large and valuable additions to the forest reserves, without materially interfering with the extension of cultivation. The instructions only contemplate the afforestment of permanent alluvial land which is already covered with a growth of jungle. When the Deputy Conservator goes further and proposes that all new alluvial tracts wherever formed should be added to the forest reserves, the Commissioner is bound to express his emphatic dissent. Much of the land along the banks of the river is occupied and if, in case of erosion, the occupants are debarred from finding compensation in the new land formed elsewhere, a large number of industrious cultivators will yearly be left landless and homeless. The finest wheat land in the Province is found in the kachas, and it would be bad economy to withdraw from cultivation land which, owing to its instability, might never last long enough to yield a single load of firewood. In many cases a newly formed "kacha" does not endure ten years before it is swept away. In that period it might yield five or six wheat harvests; while if added to the forests, it might disappear before a single tree became fit to cut. It would be folly to sacrifice revenue, and inflict serious injury on a large class of the population for the sake of adding a large area of alluvial land, the greater part of which would never be productive to the forest reserves. But Government will probably not attach too much importance to the views of an officer who finds it possible to state that "far more than railways and irrigation works, far more than on schools and police organisation, the weal or woe of a country depends on the use made of its forests." The Commissioner would at the same time add that he by no means contemplates the entire abandonment of some of the (now) useless inland reserved tracts. Some may be found capable of irrigation by the surplus waters of the projected Shikarpur Canal, others by the Begari, when that canal has been relieved of its present strain. Where there is a possibility in the future of forests being re-formed in such areas, especially along the railway line to Quetta, the Commissioner would retain them, for as observed on one occasion by Government, an inland forest, if a success, is more valuable than one that is exposed to erosion from the river.

4. The reserves are reported to have gained an area of upwards of 2,000 acres by the action of the river during the year under report. But whatever the effect may be on the area, it may be said that, as a general rule, changes in the river are detrimental to the forests, since at least some portion of the area lost is productive, while the new accretions cannot be of much use for several years. The Deputy Conservator in para. 11 alludes to the Thar and Parkar reserves. These have not yet been placed under him, both on account of the expense, and because he has quite enough to do just at present elsewhere.

5. In the section of the report devoted to "Survey, Working Plans and Annual Operations," the Deputy Conservator shows that the management of the Sind Forests has hitherto left much to be desired. The difficulties in the way of framing satisfactory working plans have, perhaps, been exaggerated; and the Deputy Conservator himself shows in para. 16 of his report that it is quite possible to devise a working plan which will be at once simple and effective. But the yield of the forests has been diminished by the wasteful and ill-regulated cuttings of the contractors through whom the Department has for some time been working; and as it appears to be impossible to keep a proper check on the contractors' work, it will probably be necessary to resort to the system of departmental cutting. An experiment in this direction is being made on a considerable scale, the results of which will be reported next year.

6. The Commissioner regrets to notice that there has been a very large increase in the number of cases dealt with under Section 67 of the Indian Forest Act. Cases of illicit grazing rose from 1,296 to 2,311, almost double, and cases of theft from 317 to 412. The explanation given by the Deputy Conservator, *viz.*, that owing to the scarcity of fodder elsewhere owners of cattle migrated in great numbers to the borders of the forests, might be accepted with more confidence if the increase had been in any degree evenly distributed among the divisions. But the Sukkur Division, in which the cases of illicit grazing were trebled and those of theft more than doubled, is responsible for the greater part of the increase. It seems highly probable that the increase in the number of petty offences dealt with by the forest officers, is due to greater stringency in enforcing the law on the part of the officer who was in charge of the Sukkur Division, Mr. G. M. Ryan. The Commissioner will see that the Deputy Conservator controls the action of the Divisional officers in dealing with petty offences, and carries out loyally the declared policy of Government in this respect.

7. The Deputy Conservator's disquisition on free grazing may be dismissed with the remark that there is no possible analogy between compact, well defined forests, and the straggling, unfenced jungles interpersed with cultivated land which form a considerable part of the new forest reserves in Sind. There are many places in which considerable areas of cultivated land are almost entirely ringed in by forest reserves, and the cattle cannot stray a yard off the occupied land without trespassing in reserved forests. Under such circumstances the grant of the privilege of free grazing on a liberal scale was an essential condition to the formation of the new reserves; and the officers of the Forest Department having received them on these terms should not now criticise or cavil at them. The Deputy Conservator is entirely in error in supposing that there has been any confusion between rights and privileges. On this point it will be sufficient to quote the instructions issued by Mr. Erskine to the Forest Settlement Officer, which were carefully observed, and will be observed by Mr. Barrow, the present Forest Settlement Officer :—

> "When he has finally completed his enquiry into the existence, nature, and extent of the rights in any reserved forest, the Forest Settlement Officer may in reporting the completion of his enquiry, make any suggestions or recommendations he may think proper as to the continuance or otherwise of any privileges or concessions not amounting to rights which he considers the people in the neighbourhood of the forest have enjoyed, or should be allowed to enjoy. These recommendations should, however, be kept quite distinct from the judicial finding or decision as to rights, and should on no account be mixed up or confused with the Settlement Officer's formal proceedings under the Act."

The Commissioner does not approve of the Deputy Conservator's suggestion that an officer of the Forest Department should be deputed to be present at the inquiry held by the Forest Settlement Officer, in order to watch the interests of the Department; and is satisfied that full confidence may be placed in the Forest Settlement Officer's judgment and discretion. It is clear that so long as the officers of the Forest Department are animated by the feelings shown in this report, it will be absolutely necessary that they should be kept under the strict control of the general administration in order to insure that the policy of Government in forest matters is faithfully carried out. Mr. Hexton has, however, the Commissioner is bound to say, always shown a ready desire to carry out the orders of Government, and Mr. James has every confidence that his zeal for his charge will always be tempered by his wish to loyally carry out instructions.

8. By far the greater part of the revenue of the Forest Department in Sind comes from the sale of firewood and charcoal. Thus out of a gross revenue of Rs 7,74,210, a sum of no less than Rs. 5,63,086 was derived from this source. Of the remainder the receipts on account of timber amounted to Rs. 96,668, grazing and fodder grass to Rs. 59,090, assessment on cultivation to Rs. 27,410, and minor produce to Rs. 21,539.

9. There was a very considerable increase in the yield of timber, firewood and charcoal, the outturn of firewood alone being 30,08,027 maunds, as compared with 27,10,900 maunds in the previous year. The North-Western Railway was, as usual, the largest customer, taking 18,63,527 maunds as against 16,98,751 in the previous year. But the most marked feature in the year's returns is the increase in the demand for fuel by other consumers. The Ferry steamers, the Commissariat Department, the Karachi Port Trust, the Hyderabad and Sukkur Municipalities, all increased their demands. As the use of steam power spreads in Sind, and the needs of Baluchistan develop, there is no doubt that the demand for fuel will continue to increase, and the steps which have been taken to provide enlarged and more constant sources of supply, were urgently required.

10. The Deputy Conservator considers that the financial results of the year are satisfactory because the net revenue is the largest on record, being Rs. 4,583 more than in the previous year. But an examination of the figures shows that this slight increase has been obtained at a very heavy cost. The increase of Rs. 93,318 in the gross receipts was almost swallowed up by the increase of Rs. 88,755 in expenditure on account of conservancy and works. The poor return for the increased expenditure is not to be accounted for by the accumulation of stocks at the depôts, since it appears that the value of the stocks has actually decreased by Rs. 1,766. It would seem that under the present arrangement an increase in the yield of the forests is not followed by a proportionate increase in the net profits, and that after a certain point the receipts from larger sales do little more than cover the cost of production. The Commissioner will be glad to receive a report on this point from the Deputy Conservator.

11. It is stated that it has been necessary to supplement the supply of the reserved forests by cuttings from uncultivated waste lands covered with jungle; but the Commissioner has not been able to discover from the report to what extent the Forest Department is indebted to this extraneous source of supply. The receipts of the Forest Department represent not only the revenue derived from reserved and protected forests, but also the revenue derived from the sale of wood grown in various tracts of ordinary waste land; and until it is known how much revenue is derived from each source, it is impossible to form any estimate of the true value of the forest reserves. In future reports the receipts under all heads from forest reserves should be clearly distinguished from receipts from other sources; and, if possible, the information should be supplied for the year to which this report relates.

12. The Commissioner has felt bound to dissent from some of the opinions expressed by the Deputy Conservator; but he fully recognises Mr. Hoxton's earnest desire for the well-being of his Department and the strenuous efforts which he has made to improve its working.

13. The sketch map forwarded, and alluded to in the Deputy Conservator's first paragraph, has not been reproduced, as it was coloured and on too large a scale, and the construction of further maps may be postponed till after the Forest Settlement Officer has completed his work.

H. E. M. JAMES,
Commissioner in Sind.

Forest Administration Reports of the Bombay Presidency, including Sind, for 1891-92.

No. 4944.

REVENUE DEPARTMENT.

Bombay Castle, 8th July 1893.

Letter from the Conservator of Forests, N. C. (now Conservator of Forests, C. C.), No. 4708, dated 12th December 1892 Forwarding the Forest Administration Report of the old Northern Circle for the year 1891-92, with its subsidiary statements.

Memoranda from the Commissioners, N. D. and C. D., Nos. 104 and R-479, dated respectively the 11th January and 1st February 1893—Submitting the above with their remarks.

Letter from the Conservator of Forests, S. C., No. 3123-A., dated 15th September 1892—Forwarding the Forest Administration Report of the Southern Circle for the year 1891-92, with its subsidiary statements.

Memorandum from the Commissioner, S. D., No. 116, dated 9th January 1893—Submitting the above with his remarks.

Letter from the Deputy Conservator of Forests, Sind Circle, No. 1668, dated 30th September 1892—Forwarding the Forest Administration Report of the Sind Circle for the year 1891-92, with its subsidiary statements.

Memorandum from the Commissioner in Sind, No. 48, dated 8th January 1893—Forwarding the above with his remarks.

Letter from the Conservator of Forests, C. C., No. 1007, dated 23rd May 1893—Forwarding certain corrections to be made in the figures and statements embodied in the Annual Administration Report of the old Northern Circle for 1891-92.

Memorandum from the Commissioner, C. D., No. R.—2308, dated 6th June 1893—Forwarding the above.

RESOLUTION.—The changes that have taken place in forest areas are reported to be as follows :—

Circle.	Area on 1st April 1891.		Added.		Excluded.		Area on 31st March 1892.		Total Forest Area.
	Reserved.	Protected	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	
	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles	Sq Miles	Sq. Miles.	Sq. Miles	Sq. Miles.
Northern Circle ..	$7,291\frac{148}{640}$	$994\frac{296}{640}$	$142\frac{344}{640}$	...	$76\frac{203}{640}$	$202\frac{450}{640}$	$7,357\frac{289}{640}$	$791\frac{486}{640}$	$8,149\frac{135}{640}$
Southern Circle ...	$1,888\frac{7}{640}$	$3,411\frac{625}{640}$	$91\frac{532}{640}$	$7\frac{478}{640}$	$2\frac{527}{640}$	$15\frac{205}{640}$	$1,977\frac{12}{640}$	$3,404\frac{258}{640}$	$5,381\frac{270}{640}$
Sind Circle... .	$991\frac{212}{640}$	$1\frac{245}{640}$	...	...	$4\frac{212}{640}$	...	$986\frac{600}{640}$	$1\frac{245}{640}$	$988\frac{205}{640}$
Total ...	$10,170\frac{367}{640}$	$4,407\frac{526}{640}$	$234\frac{236}{640}$	$7\frac{478}{640}$	$83\frac{342}{640}$	$218\frac{15}{640}$	$10,321\frac{261}{640}$	$4,197\frac{349}{640}$	$14,518\frac{610}{640}$

2. The forest area of the Karjat Táluka of Thána added by transfer during the year to the Southern Circle should of course tally with the area excluded on the same account from the Northern Circle. But a comparison of the statements attached to the reports, and the explanations thereof (paragraphs 17 and 20 (2) of the Northern Circle and paragraphs 14, 26 and 27 of the Southern Circle report) show that Mr. Shuttleworth has not entered as excluded forest *all* the area so transferred, and that his remark in paragraph 20 (2), that the area of the Reserved Forests of the Karjat Táluka with the Khálápur Petha is 64 square miles 7 acres only, is evidently incorrect. Mr. Wroughton's statement correctly shows as Reserved Forest area added to Kolába 14 square miles 154 acres in addition to the 64 square miles 7 acres which are entered as excluded area opposite South Thána in Mr. Shuttleworth's statement. This area of 14 square miles 154 acres no doubt represents lands in the Karjat Táluka which were notified under Section 19 under Notification No. 3039-D, dated the 4th May 1891. The omission above pointed out should be rectified and an amended statement submitted.

In the statement of area and boundaries for the Southern Circle no account is taken of the 12 square miles $556\frac{5}{40}$ acres of Protected Forests added during the year (*vide* paragraph 15) in the Sirsi Subdivision of Kánara. An amended statement should therefore be submitted.

3. In the Northern Circle 142 square miles have been added to the Reserved area. The gain is mainly due to the final inclusion in Reserved Forests of the demarcated lands of Dindori (Násik) and Váda (Thána), which have contributed respectively 86 and 37 square miles. Other minor additions have been made in Taloda (West Khándesh) and Khatáv (Sátára). At the same time 76 square miles have been taken from the Reserved area of the Northern Circle. This loss is almost entirely accounted for by the transfer of the Karjat Táluka from the Northern to the Southern Circle. The real loss is insignificant and due to the disforesting for various reasons of scattered lands in the process of final selection of boundaries. No additions have been made to Protected area in the Northern Circle. On the other hand, about 202 square miles are shown as excluded. Of this area, however, about 35 square miles were converted during the year into Reserved Forests in Váda (Thána), while in the Panch Maháls 72 square miles in the Dohad range and 41 square miles in the Jhálod range are to be similarly converted, but have not been entered as additions to Reserved area, the notifications respecting them under Section 19 of the Forest Act not having yet been published.

4. The changes of area in the Southern Circle, other than those arising from the Karjat transfer, are due to the conversion of about 13 square miles of Protected into Reserved Forest in 17 villages of the Sirsi Sub-division of Kánara in accordance with the sanctioned demarcation.

5. In Sind no additions to forest area have been made. But 4 square miles 252 acres have been lost, partly by erosion and partly by disforestment. The area of the Sind forests owing to frequent erosions must vary more or less from year to year, and there does not appear to be any need for a detailed and expensive survey. The necessity of increasing the productive forest area to meet the growing demands of the Province has been recognised and when the additional area required has been finally selected, a fresh calculation of the total forest area will have to be made. In making the selections of alluvial lands for new reserves the special officer recently appointed will no doubt make due provision in accordance with the Commissioner's advice for the wants of cultivators whose lands may be lost by erosion. It is out of the question, as Mr. James rightly points out, that *all* new alluvial lands wherever formed should be added to forests. Erosions and accretions may be expected to balance each other in the long run. But if all the accretions were to be absorbed in forests, as proposed by Mr. Hexton, leaving no land to take the place of cultivated areas lost by erosion, cultivation on the banks of the Indus would sooner or later entirely disappear.

6. The selection of lands for forests had been completed in 76 out of the 84 forest tálukas in the Northern Circle, Thána and Khándesh being the only districts in which demarcation work still remained to be done. Good progress, however, was made in Khándesh by Mr. Dodgson, and as soon as orders have been passed by Government on proposals for the Taloda and Pimpalner tálukas the demarcation of that district will be practically complete.

The comparatively small progress made in Thána is disappointing; but, as has been explained in paragraphs 26 and 28 of Mr. Shuttleworth's report, Mr. McIver's work was greatly hindered by the unhealthiness of the season. In Kánara, though a fair amount of demarcation work appears to have been done, much still remains; while in Belgaum and Dhárwár Mr. Knight, having charge of an Assistant Collector's office for the greater part of the season, was unable to make any satisfactory progress. Government concur in the Commissioner's remarks as to the necessity of appointing a second full-time Forest Settlement Officer for Kánara and hope on Mr. Wingate's return from furlough to be able to carry out this recommendation.

7. The progress made in the settlement of old forests notified under Section 34 is shown in the following table :—

Circle.	Class of forests.	At the commencement of the year, areas under Section 34 in which private rights had not been enquired into, settled or recorded.	Areas settled during the year.		Area of Reserved Forests alienated under Section 26.	Area of Protected Forests disforested under Government Orders.	At the end of the year, areas under Section 34 in which private rights have not been enquired into, settled or recorded.
			Under Chapter II of the Forest Act.	Under Chapter IV of the Forest Act.			
		Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
Northern Circle ...	Reserved... ...	820	11	...	...	...	809
	Protected ...	560	...	$18\frac{320}{640}$	...	...	$541\frac{320}{640}$
Southern Circle ...	Reserved	$381\frac{75}{640}$	$13\frac{371}{640}$	...	...	...	$367\frac{344}{640}$
	Protected ...	$2,459\frac{36}{640}$	...	$12\frac{550}{640}$	...	$\frac{9}{640}$	$2,446\frac{111}{640}$
Sind Circle... ...	Reserved... ...	.....	...	...	...	...	... ..
	Protected ...	.....	...	...	...	...	... ..
Total ...	Reserved... ...	$1,201\frac{75}{640}$	$24\frac{371}{640}$	...	...	...	$1,176\frac{344}{640}$
	Protected ...	$3,019\frac{36}{640}$	...	$31\frac{236}{640}$	...	$\frac{9}{640}$	$2,987\frac{431}{640}$

The work is still much in arrears in Kánara and Bijápur and in both divisions of Thána. It has been completed in all the divisions of the Northern Circle except Thána. The area of the Dángs in Surat, to which the Forest Act does not apply, need not be entered in future in the statement attached to paragraph 25 of Mr. Shuttleworth's report. In Kolába only a small area of old forest contained in four villages in Nágothna still remains to be settled, and the Collector should see that this work is completed without delay. In the statement appended to paragraph 33 of the Southern Circle report, 13 square miles 371 acres dealt with during the year in Kánara are wrongly shown as Protected instead of Reserved Forest, and the figures in the last column of the statement showing the areas in which rights have still to be inquired into are consequently incorrect. An amended statement should be submitted.

8. The settlement of lands provisionally notified under Section 4 appears to have been completed only in Násik and Surat; but creditable industry was shown during the year in finishing up odds and ends of settlement work in Ahmednagar and Poona, by acquiring occupied lands required for forests by purchase or exchange.

9. The attention of the Conservator, S. C., should be drawn to the Commissioner's remarks in paragraphs 4 and 5 of his forwarding memorandum, and an explanation should be given of the way in which the average cost per square mile of settlement operations has been calculated. The cost is shown in the report to have been Rs. 141·7 per square mile in 1891-92 as against Rs. 22·65 in the preceding year. It is doubtful if the cost of settlement operations, calculated by dividing the total expenditure by the number of square miles of which the settlement was completed in any particular year, can be otherwise than misleading. No account is taken of the actual field work done during the year. In years in which the greater part of the Forest Settlement Officer's time is taken up in selecting lands for forests in unsettled tálukas and less progress is made in settling areas for which the field work has previously been completed, the cost of settlement calculated as above will appear disproportionately high, while in other years, when less field and more settlement work is done, the cost will be comparatively low. Apparently there are no means by which the cost of the settlement operations per square mile of areas finally included in forests can be estimated with even approximate accuracy, until the entire work has been completed in a district. It may be observed that Mr. Nugent is in error in supposing that the salaries of Forest Settlement Officers are debited to forests, the cost of their establishments only being debited to that head.

10. The account given in paragraphs 49 and 50 of Mr. Shuttleworth's report as to the extent to which the permission of taking small branchwood, shrubs and undergrowth from the coupes of the season has been utilised, proves little as to the real demand for such material. As might have been expected

it was freely taken in the more accessible, and left to rot in the more distant, coupes. It is of course unavoidable that many fellings should take place in parts of the forest so remote from village sites and cultivation as to make the labour of transporting such material out of all proportion to its value either as small firewood or manure. The fact, however, presuming Mr. Shuttleworth's information to be reliable, that the material that was removed was taken almost entirely for firewood, and not to any extent for ash manure, shows that the villagers can as a rule get a sufficient and more convenient supply of ráb materials elsewhere. This inference is strengthened by the absence of all complaints of short supplies during the year. The experiments made in the North Thána Division with a view of ascertaining the volume of material placed at the disposal of the forest villagers by the concessions above alluded to are useful and might with advantage be continued. It may be gathered from the facts collected that a single coupe of 50 acres will provide about 500,000 lbs. weight or 445 tons of loppings, twigs and leaves. Assuming that half of this material could be utilised for ash manure and that an equal weight of grass was available, it would, taking Mr. Ozanne's Karjat experiment as the basis, provide ráb for about 100 acres of rice cultivation.

11. The progress made in the forest survey appears to be satisfactory, and Mr. Shuttleworth's explanation as to the difference of the mileage rates in the Northern and Southern Circles respectively may be accepted as correct. Mr. Wroughton should have given fuller information as to the work remaining to be done in his Circle.

12. The working plans division of the Northern Circle under Mr. Fry was, as in former years, principally occupied in laying out compartments in Thána, and it is satisfactory to note that the quantity of such work performed during the year was considerably in excess of that reported last year. The work has been pursued on the same lines as before and Government see no reason to doubt that the system adopted, if not theoretically the most perfect, is the one best suited to the local conditions of the Thána forests. Although the cost of the preparation of working plans in the Southern Circle has been comparatively small in proportion to the areas dealt with, the work of one party has been hindered by the difficulty in getting labour at the beginning of the season, while the collection of the *data* required for a great portion of the area is said to have been delayed owing to the inability of the Divisional Officer to keep pace with the preliminary work of the two parties working under him. It is hoped that better arrangements in this respect will be made in future.

13. Government agree with the Commissioner in thinking that Mr. Hexton has made too much of the difficulties attending a systematic working of the Sind forests. The plan which Mr. Hexton has described in the concluding portion of paragraph 14 of his report appears judicious. It is obvious that a demand equal to twice the annual yield cannot be met under any possible treatment. An increase in the productive area of the forests of Sind is no doubt urgently needed, and with this object in view Government have already appointed a Special Settlement Officer to make the necessary selections of land.

14. The following tables show (*a*) the number and result of prosecutions for forest offences, (*b*) the number of cases dealt with under Section 67 of the Forest Act, and the amounts paid as compensation in 1891-92 as compared with the preceding year :—

Table (a).

Circle.	1890-91.		1891-92.		Percentage of failures.	
	Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1890-91.	1891-92.
Northern Circle ...	1,433	322	1,262	274	22·4	21·7
Southern Circle ...	197	51	252	56	26	22
Sind Circle ...	59	23	35	14	39	40
Total ...	1,689	396	1,549	344	23·44	22·20

TABLE (B).

Circle.	1890-91.			1891-92.					
	Cases compounded.		Amount realized.	Cases compounded					Amount realized.
				For misappropriation of			For	Total.	
	Number of cases dealt with under Section 67.	Number of cases in which compensation was accepted.		(a) Timber.	(b) Firewood.	(c) Minor Forest produce.	(d) Other offences.		
			Rs.						Rs. a. p.
Northern	*9,917	9,762	31,093	1,210	1,254	215	9,648	12,327	30,413 11 6
Southern	1,052	1,048	2,772	Not given.	Not given.	Not given.	Not given.	804	2,216 0 0
Sind	1,666	1,666	2,660	Not given.	Not given.	Not given.	20	2,751	3,418 0 0
Total ...	12,635	12,476	36,505	.....	.....	.....	.....	15,883	36,047 11 6

* For misappropriation of timber and wood 2,103
" minor forest produce 232
" other offences 7,582
Total ... 9,917

Note.—Out of 12,327 compounded cases in the Northern Circle for 1891-92 compensation was accepted in 11,812 cases.
Out of 804 compounded cases in the Southern Circle for 1891-92 compensation was accepted in 803 cases.

15. In reviewing the Forest Administration Reports for 1890-91, His Excellency the Governor in Council had occasion to comment severely on the very large number of trivial offences in which proceedings had been taken under Section 67 of the Forest Act, especially in the Northern Circle, contrary to the spirit of previous Government orders. The subject has been dealt with at great length in Government Resolution No. 7232 of the 12th September 1892, and in correspondence which has ensued thereon. The policy of Government in this matter has been already clearly declared, and the question as to the best means of giving practical effect to that policy, and of guarding, either by executive orders or rules under the Forest Act, against the abuses which may result from injudicious or over-zealous application of the existing provision of the Act for compounding offences, is receiving separate and careful consideration.

16. As will be seen from the statements attached to paragraph 14 above, fewer cases have been taken to the criminal Courts than in the preceding year, both in the Northern Circle and Sind, while the number of prosecutions has increased in the Southern Circle. The net result, taking all three Circles together, is a reduction from 1,689 cases in 1890-91 to 1,549 in 1891-92. Except in Sind there has been a slight improvement in the proportion of convictions to prosecutions.

The number of cases in which compensation was accepted under Section 67 has again risen in the Northern Circle from 9,762 in 1890-91 to 11,812 in 1891-92. The amount realised has at the same time decreased from Rs. 31,093 to Rs. 30,413. In Sind also the number of compounded cases has risen from 1,666 representing payments aggregating Rs. 2,660 to 2,752 realising Rs. 3,418. In the Southern Circle it is satisfactory to note a decrease in the number of cases from 1,048 yielding Rs. 2,752 to 804 yielding Rs. 2,216.

17. The total number of cases in the three Circles, including those brought into Court and those compounded in 1891-92 as compared with 1890-91, is shown below :—

	TOTAL NUMBER OF CASES.	
	1890-91.	1891-92.
Northern Circle	11,350	13,587
Southern Circle	1,249	1,056
Sind	1,725	2,787
Total ...	14,324	17,430

Except in Thána and Surat the increase is general throughout all the divisions of the Northern Circle. The large decrease in the number of offences in the Northern Division of Thána affords satisfactory evidence of the success of the system now adopted of providing by means of numerous blocks and coupes abundance of cheap forest produce for local wants as well as export, and thus removing as far as possible all temptation to illicit cutting. The decrease in South Thána is also satisfactory, though it must be noted that the result in this case is not wholly due to the introduction of a better system. The transfer of the Karjat and Khálápur ranges to the Southern Circle and the dispersal of the labourers employed on the Tánsa Water-works have naturally had the effect of diminishing the number of cases in this Circle. The large increase in the number of forest offences which have occurred in Sind is attributed by the Conservator to scarcity of fodder and consequent trespass in forests. Government are satisfied that Mr. James will do all that is necessary to prevent unnecessary harshness in dealing with trivial offences. As regards the returns for the Southern Circle, which show a considerable reduction in the total number of cases dealt with, Government are glad to be able to endorse Mr. Nugent's opinion that there is no reason to criticise unfavourably the action taken by the Forest Department in that Circle in protecting forest property.

18. The number of animals impounded in the three Circles in the year under report, as compared with last year, was as follows :—

	For trespass in closed area.		For grazing in open area without passes.		Total under both heads	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Northern Circle ...	202,372	202,255	100,221	137,041	302,593	339,296
Southern Circle...	7,310	4,283	2,996	4,443	10,306	8,726
Sind Circle ...	7,894	10,981	10,211	12,861	18,105	23,842

The number of animals impounded for grazing without passes in open area has thus increased in all three Circles. The divisions of the Northern Circle which contribute the greatest number of cases under this head are East Khándesh, Násik, Poona, Sátára and Ahmednagar, which last division heads the list with a total of 48,365. It may be noted, however, that out of the total number of animals so impounded, *viz.* 137,041, no less than 86,745 were sheep and goats, owned for the most part by nomad professional graziers.

The number of animals impounded for trespass in closed areas in the Northern Circle is practically the same as last year, and the divisions mainly responsible for the large figures under this head are the same as those mentioned above with the addition of West Khándesh and Sholápur, the Ahmednagar Division heading this list also with a total of 46,708. Of the total number of animals, *viz.* 202,255, 96,850 or nearly half are reported to have been sheep and goats. The number of cases of trespass in closed areas has increased in Sind, but has decreased substantially in the Southern Circle.

19. The only division in the Northern Circle where there was a notable and satisfactory decrease in the number of cattle impounded is West Khándesh, where the total has fallen from 45,821 in 1890-91 to 24,500 in 1891-92, or nearly 50 per cent. Mr. Shuttleworth contends that ignorance of forest boundaries has nothing whatever to do with cattle trespass, and that "every little cow-boy in a forest village knows where the forest boundaries run, and the location and extent of the closed forest, and of the open or grazing areas." It may perhaps be doubted whether all the forest subordinates themselves possess this accurate knowledge, especially where the closed areas of forests are not visibly protected by fences. The remarks of the Collector of Khándesh, which Mr. Shuttleworth himself quotes in paragraph 121 of his report, to the effect that the decrease in cases of cattle trespass in that district is due to the people now "getting to know the

reserves better," clearly suggests the inference that the forest boundaries have not hitherto been so well understood as the Conservator believes, and that this ignorance is at any rate one of the causes which contribute to swell the number of cattle impounded. It has, however, been rightly pointed out, as appears from the remarks of Mr. Desái noticed in the extract from the remarks of the Collector of Khándesh quoted in paragraph 113 of Mr. Shuttleworth's report, that "the temptation to graze now in closed areas is greater than before." Where closure has been more or less effectively carried out for some years and the grass produce is in consequence yearly becoming more valuable, the temptation to trespass and the damage done by trespass must necessarily be greater. There must be many such areas liable to frequent inroads of cattle, where the increased value of the property to be protected would amply justify the expenditure which would be incurred in surrounding them with strong wire or other fencing. Some progress in this direction has already been made in the Northern Circle, and Government trust that Mr. Shuttleworth will be able to arrange gradually for the clear demarkation or the fencing of all such areas. By some such means it may be hoped that by degrees the large number of cases compounded and the enormous number of animals impounded may be reduced. The criticisms passed by Government in its review of the Administration Reports for 1890-91 could not affect the figures of the reports now reviewed: but His Excellency in Council regrets to have to notice that the warnings conveyed in the review of the Administration Reports for 1889-90 have not been effectual in reducing the figures. He trusts that he may not have again to comment adversely on this subject.

20. The total area burnt by forest fires in the Northern Circle, though less than the area burnt in the preceding year, is still very considerable. The energetic measures adopted by Mr. Sinclair in Thána, which ensure the effective co-operation of the Revenue and Police officers in the suppression of fires, have borne good fruit, the area burnt in the North and South Thána Divisions having been reduced from acres 53,539 and 85,300 in 1890-91 to 8,613 and 10,420 respectively in 1891-92.

The system adopted in Thána with such marked success will, under the orders conveyed in Government Resolution No. 757, dated the 27th January 1893, be introduced in all other forest districts, and Government have no doubt that with energy on the part of the Collectors the result will be a very large reduction in the area burnt in future years. It is satisfactory to note that the villagers in the East Khándesh Division willingly rendered help in putting out a large and destructive fire, and that in the Dángs also some valuable forest was successfully protected against fire by the cooperation of the local residents. In the Southern Circle the area burnt exceeds that reported last year, while the area protected was practically the same. But the proportion of area burnt to area protected is under 2½ per cent. in this Circle, while in the Northern Circle it exceeds 20 per cent. The comparatively small damage caused by fires in Kánara bears out the Commissioner's conclusion that the villagers in that district are not usually guilty of wilful incendiarism. The proportion of unprotected area which escaped is not shown in Mr. Shuttleworth's report, but is said to have been 74 per cent. in the Southern Circle. The area burnt in the Sind Circle, though more than double that burnt in the preceding year, is still comparatively insignificant.

21. The receipts from grazing and fodder grass have been as follows :—

	Amount.	
	1890-91.	1891-92.
	Rs.	Rs.
Northern Circle ...	3,61,983	4,35,923
Southern Circle	72,809	91,487
Sind Circle	56,875	59,000

The increased revenue derived from this source is due mainly to the higher fees levied under the rules issued in 1890. The new grazing rules were brought into force during the year throughout the Northern Circle except in the Panch Maháls, the western tálukas of Poona, the Peint Táluka of Násik and the greater part of Thána.

As far as can be judged from Mr. Shuttleworth's report and the opinions of the Collectors whom he has quoted, the new rules have worked smoothly. Government would have been glad, however, if Messrs. Reid and Fleet had, in reviewing the report, expressed their opinions on the subject, as it is on the supervision which the Commissioners may exercise that the success or otherwise of the new rules mainly depends.

22. Owing to the serious scarcity of fodder which occurred in some parts of the Southern Circle the operation of the new rules had to be suspended in three of the five districts in which they had been introduced, and all the forests, both above and below gháts, were thrown open for free grazing. The value of the Kánara forests as fodder reserves in years of scarcity was, as Mr. Nugent observes, shown by the fact that no complaints were heard of cattle taking refuge in them dying for want of nutriment. In Poona in the Northern Circle scarcity of fodder was also felt during the year owing to deficient rainfall, and in this division also some relief was given by making certain closed areas in Bhimthadi and Indápur available for grazing.

23. The reports of the Conservators, N. C. and S. C., contain as usual interesting accounts of the results of natural and artificial reproduction in the various divisions under their respective charges. No special remarks, however, are necessary on this subject.

24. The Dáhánu-Jawhár road in the Thána District, which has been completed during the year under report at a total cost of Rs. 2,09,519, and the contemplated extension of the same road to the Násik District will be of great use in opening up the forests of Dáhánu and Mokháda. The Váda-Shirghát project, which will eventually give through communication between Pálghar on the B. B. & C. I. Railway and Ghoti on the G. I. P. Railway in the Násik District, will also very materially serve forest interests in making it possible to bring the produce of many valuable but hitherto almost inaccessible reserves to places where carriage by rail or water is already available. Government are glad to acknowledge the assistance which Mr. K. G. Desái, L.C.E., Executive Engineer, Thána, has rendered in planning and carrying out these and other useful projects for developing the resources of the Thána forests.

25. The financial results of the year are shown in the following table :—

Circle.	Receipts.		Expenditure.		Net Revenue.		Increase or Decrease of Net Revenue in
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1891-92.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern Circle	12,57,502	13,62,732	7,35,705	7,18,493	5,21,797	6,44,239	+1,22,441
Southern Circle	13,49,826	11,47,707	7,04,955	7,05,231	6,44,871	4,42,476	—2,02,395
Sind Circle	6,80,892	7,74,210	4,13,201	5,01,936	2,67,691	2,72,274	+4,583
Total ...	32,88,220	32,84,649	18,53,861	19,25,660	14,34,359	13,58,989	—75,371

26. The year has been a prosperous one in the Northern Circle. Notwithstanding the transfer of two ranges of South Thána to the Southern Circle, and the cessation of sales of timber in the same division to the Tánsa contractors, who were in previous years large consumers, the progressive increase in net as well as gross receipts has been well maintained. It is satisfactory to observe that in the

year under review, with a gross revenue of over 13½ lákhs, the expenditure, Rs. 7,18,493, has been less than it was in 1887-88, when the gross receipts fell short of 10 lákhs. The substantial increase in net revenue, *viz.*, Rs. 1,22,441, has been well earned by sound management and legitimate enterprise.

27. Departmental operations in the Northern Circle contribute a smaller proportion of the total outturn of forest produce than in the Southern Circle or Sind. The receipts under this head form, however, a considerable item in the accounts of Khándesh, Surat, Poona and Sátára. The cost of removing timber and other produce by Government agency has been reduced in 1891-92 to Rs. 46,596, as against Rs. 60,402 in the preceding year, while the receipts under the same head have risen from Rs. 2,17,435 to Rs. 2,37,647. Taking timber fellings by Government agency alone the cost has fallen from Rs. 46,067 in 1890-91 to Rs. 30,571 in 1891-92, while the receipts have risen from Rs. 1,64,147 to Rs. 1,67,391. In Thána, with the exception of a few out of the coupes which were unsold and a small cutting of the trees remaining on the Tánsa Duct strip, no timber was felled departmentally. In North Thána 5 out of 23 unsold coupes were felled by Government agency. There was, it appears, no demand at all for the material of 2 out of these 5 coupes, while the prices obtained for the produce of the remaining 3 coupes were so low that the net result of the operations was a loss of Rs. 171. Similarly in South Thána 2 only of the unsold coupes were felled, as the Collector considered that local wants could be sufficiently met from other sources. So long as local supply is not affected, and the wants of the villagers can be otherwise provided for, a matter regarding which the Collector is best able to judge, Government will not insist on the departmental felling of coupes for the produce of which there is no demand. It is most desirable, however, that as far as possible the coupes should be felled in regular rotation, otherwise the regularity and orderliness of the rotation system is lost; and it is deprived of its main advantage when, owing to areas that should have been cut in previous years being left standing, the Conservator's forecast of the area to be cut, and therefore of the quantity of timber he has to put on the market, is upset. Where a coupe has not been felled in its proper year every effort should be made to dispose of it in the following season.

28. The revenue of the Southern Circle shows a serious decrease, and for the first time since 1883-84 its gross receipts and net revenues have been exceeded by those of the Northern Circle. The gross receipts have fallen from Rs. 13,49,826 in 1890-91 to Rs. 11,47,707 in 1891-92. The expenditure remaining practically the same as in the preceding year, the net revenue has fallen from Rs. 6,44,871 to Rs. 4,42,476. This large decrease of over 2 lákhs is no doubt mainly due, as explained in Mr. Wroughton's report, to the serious scarcity which prevailed in the plain districts of the Southern Marátha Country, and the consequent paralysis in the timber trade of those tracts, and also to decreased demand for wood fuel owing to reduced traffic on the Southern Marátha Railway. These causes are fortunately of a special and temporary nature, and as a set-off against the loss of current revenue it may be observed that the value of timber on hand in the depôts of the Southern Circle at the close of 1891-92 exceeded by nearly 1¾ lákhs the value of the stock in hand at the close of the preceding year.

29. The gross revenue of the Sind Circle has risen from Rs. 6,80,892 to Rs. 7,74,210. But as the charges have at the same time risen from Rs. 4,13,201 to Rs. 5,01,936, leaving an increase in net revenue of Rs. 4,583 only, the financial result cannot be regarded as being wholly satisfactory. As an indication of the growing prosperity of the province, there has been a notable increase in the demand for fuel in Sind for railway and other purposes. This growing demand will no doubt tax the energies of the Forest Department for many years to come. The Deputy Conservator's attention should be called to the Commissioner's remarks in paragraphs 10 and 11 of his forwarding memorandum, in which Government concur. An increased yield under careful management should naturally be accompanied by a proportionate increase in net revenue, and when this is not the case, full explanation is necessary. It is also important, as Mr. James points out, that the receipts from forest reserves should be clearly distinguished from receipts from other supplementary sources, as it is otherwise impossible to estimate the real resources of the reserves themselves.

30. The returns of minor forest produce sold during the year include in all three Circles articles of which the sale in open forests will in future be left free and unrestricted under the principles laid down in Government Resolution No. 9846 of the 15th December 1892.

31. The acknowledgments of Government are due to Messrs. Shuttleworth, MacGregor and Hexton for the zeal and ability with which they have performed their duties during the year under review. Mr. Shuttleworth has had the pleasing task of recording the results of a particularly successful year's administration, and as this is the last occasion on which his reports will deal with the forests of Thána and Gujarát, His Excellency the Governor in Council takes this opportunity of expressing his sense of the valuable services which he has so long and so efficiently rendered in the management of the forests of those tracts. Mr. Wroughton has laboured under the disadvantage of compiling a record of work in which he took no personal part, but has nevertheless submitted a careful and interesting report. Mr. Hexton, in discussing certain subjects, has expressed opinions with which Government cannot concur and on which the Commissioner has commented with disapprobation. The Governor in Council is satisfied, however, that Mr. Hexton, like all other officers in the department, is actuated by a ready desire to carry out the orders of Government in the spirit in which they are issued. Government have in conclusion much pleasure in observing the harmonious relations which have subsisted between the Revenue and Forest officers during the year and the satisfactory results which have generally followed from their cooperation.

G. W. VIDAL,
Acting Chief Secretary to Government.

To

The Commissioner in Sind and the Commissioners of Divisions,
The Conservators of Forests, Central and Southern Circles,
The Deputy Conservators of Forests, Northern and Sind Circles,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Survey Commissioner and Director of Land Records and Agriculture,
The Accountant General,
The Judicial Department of the Secretariat,
The Public Works Department of the Secretariat,
} With copies of the report.

The Secretary of State,
The Government of India, } By letter.
The Editors' Tables, Bombay and Poona.